Round About the Rockies

A GUIDE BOOK FOR THE TOURIST
A SOUVENIR FOR HIS FRIENDS

By CHARLES W. STOKES

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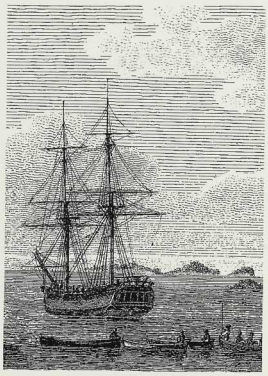

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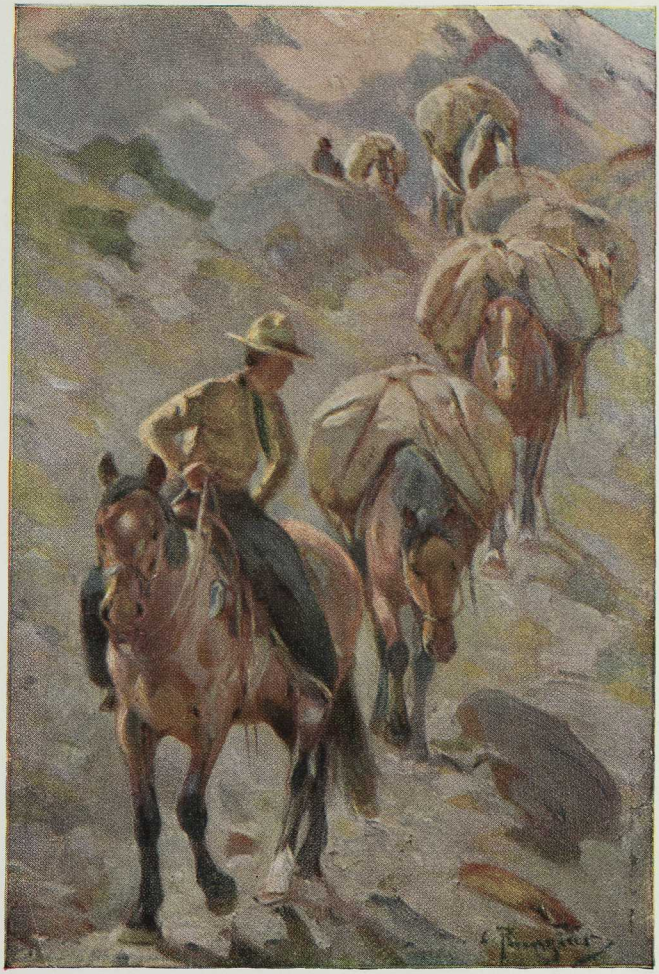

A MOUNTAIN TRAIL.

From a painting by
Carl Rungius.

Round About the Rockies

By

Charles W. Stokes

An Everyday Guide to the Rocky and Selkirk Mountains of Canada

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FOREWORD

It is difficult to mix so-called inspirational writing with everyday information, and in this little book scarcely any attempt has been made to do it. Guide-books are somewhat like fire: they are good servants but bad masters—at least, to those who write them; and the writer's aim, even despite the distractions of so magnificent a theme, has been to provide one that is a guide-book only.

The more exhaustive publications of many distinguished authors, scientists and climbers have been freely quoted—often verbatim. For this, grateful acknowledgments are hereby tendered. In particular, the present writer thanks Mrs. Fred Brewster, Messrs. J. B. Harkin, James White, L. S. Crosby, Basil Gardom, C. Price-Green, A. H. Devenish, and Lt.-Col. P. A. Moore for their co-operation in the cause of accuracy.

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Round About the Rockies

THE ROCKY MOUNTAINS OF CANADA

When the World Shrank

About eighty million years ago—or perhaps eight hundred million, the unprejudiced alternative being that of H. G. Wells—when this earth spun round hot and lifeless, when the molten world-matter began to solidify into the first fundamental rocks, a chain of hills or mountains enclosed the present region of Hudson Bay. This was, if geological time can really be measured at all, at least two hundred times farther away from the first Ice Age than that Ice Age is from us. By the much later date that the oldest existing mountains in America were formed, these ancient hills had been worn down almost to a plain, and in due course they disappeared altogether.

The hopeful geologist skips some fifty million years (or five hundred million years, just as you prefer) and brings us to the age of rudimentary sea-animals. Sometime in that indistinct period a crisis occurred in the earth's history. The interior of the earth, due perhaps to loss of heat, shrank in size. But its outer covering was not, of course, so easily constricted, and exactly the same process took place as ensues when—shall we say?—an apple is dried out. The world shaped itself into wrinkles. Creation's method of taking up the slack was to form mountains.

In certain parts of the earth's crust, great areas upon which heavy deposits of sediment had been slowly accumulating subsided under their weight towards deeper, hotter levels, lost their strength in the intense heat, became plastic—and as the point of least resistance yielded, when the earth shrank, to the great outward thrust that crumpled up its outer covering. The bottom of the sea became mountains. Such a convulsion (if so slow an event could be called that) occurred not only once in the world's history, but hundreds of times; in particular, one produced the Rocky Mountains.

The Rocky Mountains

The Rocky Mountains sprawl over the western half of North America from Alaska down to Mexico. They might be called the spine of North America, only that they are so sadly out of centre that the cleverest of chiropractors could make nothing of them. They follow, approximately, the coastline of the Pacific Ocean; the highest and most easterly range parallels that coast at an average distance of about 500 miles—the last palisade between the Pacific and the plains that slope away for two thousand miles before other mountains are reached.

One says "the Rocky Mountains". That is a convenient label for the whole Cordilleran belt; but the system includes several ranges which are geographically entirely separate, as well as being geologically much older. While it is throughout essentially a mountainous country, very complicated in its physical characteristics and interlocking rivers, two principal ranges form its ruling features—the Rockies proper and the Coast Ranges. Between them are many other ranges, shorter and less regular in trend, such as the Selkirk Mountains, the Gold Range and the Cariboo Mountains.

The Canadian Rockies, using the name in its most restricted sense, are not even a direct continuation of the Rockies of the United States. They begin some distance to the side of the latter, a little south of the border in Montana, and have a width of 60 miles or more between British Columbia and the prairies. This width they maintain for four or five hundred miles to the north-west, beyond which they are narrower and lower. They are still a distinct range of mountains in the Yukon territory, and do not finally disappear until they reach the Arctic Ocean west of Mackenzie River, so that the total length is not less than 1,600 or 1,700 miles.*

The Selkirk Mountains

The Selkirk Mountains, the next range going westward, and the next in height, are isolated and comparatively short. They extend north from the United States boundary for about 200 miles, with a breadth of about 80 miles. East, west and north they are bounded by the Columbia River, which makes a loop around them in its circuitous route to the Pacific. They belong to a much more ancient geological epoch than the Rockies; in outline they are rounder and less serrated. On the south east is the Purcell Range; on the west is the Gold Range, prolonged northward as far as the Cariboo Mountains.

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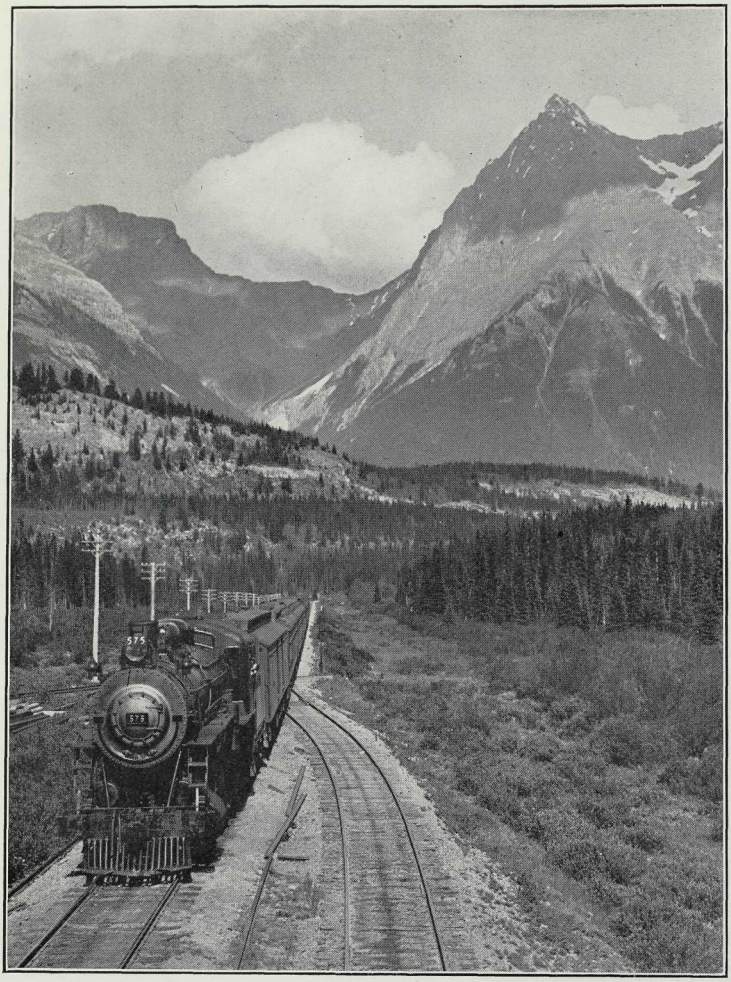
*A. P. Coleman: The Canadian Rockies



THE ROCKY MOUNTAINS.

The Boundary Mountains The Rockies reach their climax in Mount Robson, 285 miles north of the international parallel; beyond that they begin gradually to flatten down towards the Arctic. Far to the north, however, the Cordillera becomes a knot of very lofty mountains along the boundary between Canada and Alaska. This isolated sub-arctic range, which has no fixed name, contains giant peaks far surpassing any of the southern regions. Amongst them are Mounts McKinley, Logan, St. Elias and Fairweather—all snowy and glacier-clad for almost their entire height, which ranges from 15,000 to 20,000 feet! Most of them are still unclimbed—many are still rather indeterminate as to actual height. They are too distant, too difficult of access, too severe in their climatic conditions, ever to become serious rivals of the Rockies as mountain playgrounds.

Statistical It must not be forgotten that the most northerly railway through the Canadian Rocky Mountains does not at any place touch a higher latitude than about 425 miles north of the international boundary. In a very literal sense the modern Mahomet must go to the mountains that will not come to him, and practicability of access is very largely determined by transportation facilities. Beyond the latter, the hardest-bitten enthusiast will scarcely venture except he is map-making or exploring. An economic map issued by the Canadian Government suggests the "sphere of influence" of the railway belt as ending approximately at the 56th degree of latitude, and with that limitation the reader for whom this book is more particularly planned will probably in all heartiness agree.

While it is therefore conceded that Canada has possibly 800 peaks of 6,000 feet in height, or over, for practical purposes that number can be reduced to those south of the 56th degree. Even with that limitation, there are over 650 of this altitude in the provinces of Alberta and British Columbia—British Columbia, that is, on the mainland. The statistically-inclined who may be disposed to push the calculation farther will find, by analyzing Mr. James White's "Dictionary of Altitudes in Canada"*:

100	6,000 feet or over	103	10,000 feet or over
122	7,000 feet or over	37	11,000 feet or over
150	9,000 feet or over	3	12,000 feet or over
128	8,000 feet or over	1	over 13,000 feet
		644	

*Mr. White's book was issued in 1915, and to it can be added many mountains measured, discovered, or named since, such as Mount Edith Cavell (11,033 feet); nor does it take cognizance of the hundreds of unknown or unnamed peaks.

The curious will find also in this book that there are many score of passes of six, seven, eight, or more thousand feet in height, the highest being apparently Abbot Pass (9,588 feet).

Canada's National Parks

This book is written around the National Parks of Canada—or at least, around those of them which are situated in the mountain region. There may be other ways of writing about the Rockies, and all said and done those eleven parks comprise less than 4 per cent. of the mountainous area which we have limited by the 56th degree of latitude. But this publication is one essentially for the tourist, and it is for him that the national parks have been created.

Canada has verily no reason for modesty in the provision which it has made, in these magnificent mountain parks, for both the enjoyment of the visitor and the preservation of beauty. Judging by size alone, it has reserved for these purposes an area nearly five times as big as one of its own provinces (Prince Edward Island).

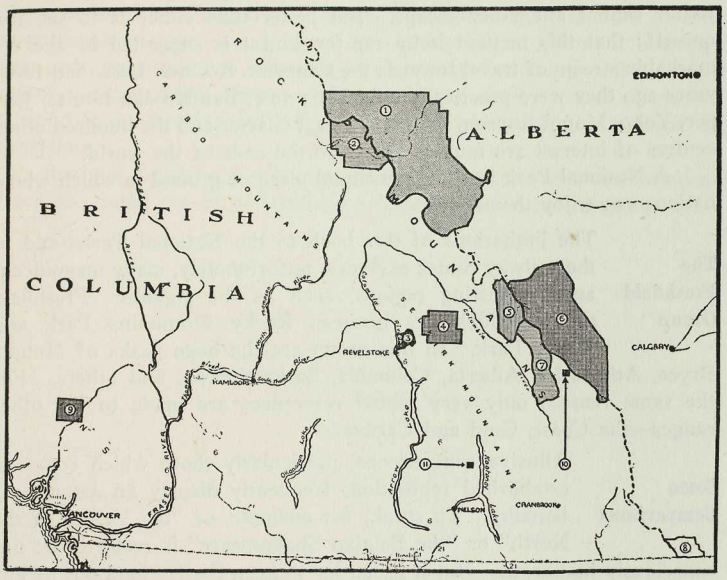
A comparison, again, with the United States is entirely in Canada's favor, notwithstanding that the United States is frequently regarded as the best national park'd country of the world. Notwithstanding, also, that the mountainous area of the western United States within easy reach of transportation is approximately four times as great as that of Canada, or that the national park idea is much older in that country. Hot Springs Park was created as long ago as 1832, and the Yellowstone Park in 1872; the oldest Canadian park dates only from 1885.

Yet Canada, with only seven Federal Parks, has already 400 square miles more territory than the United States has in its twelve. It has in Jasper Park the largest park of the continent, with an area of 4,400 square miles compared to the 3,348 of Yellowstone. Moreover, Canada has in the four mainland provincial parks of British Columbia an additional area of nearly 1,000 square miles, compared to the very negligible 30 of the seven State Parks of California, Idaho, Washington and Wyoming.*

What is a Park?

One dictionary defines "park" as "a large enclosed piece of ground, usually with woodland and pasture". The uninitiated think of parks in terms of Central Park, Hyde Park, or the Champs Elysées, with fountains and "Keep Off!" signs on the grass. Here is an area almost as large as Belgium that not only comprises the finest sections of the great mountain region,

*See Appendix, page 93.



BRITISH COLUMBIA AND ALBERTA, SHOWING NATIONAL PARKS

1.—Jasper Park. 2.—Mount Robson Park (Provincial). 3.—Mount Revelstoke Park. 4.—Glacier Park. 5.—Yoho Park. 6.—Rocky Mountains Park. 7.—Kootenay Park. 8.—Waterton Lakes Park. 9.—Garibaldi Park (Provincial). 10.—Mount Assiniboine Park (Provincial). 11.—Kokanee Park (Provincial).

expropriated from private ownership, but which is devoted entirely to the pleasure and enjoyment of the visitor!

It is a region richly endowed by Nature to become the playground of the western world. To visualize it is the function rather of the picture than of the written word, for while both may err on the side of under-statement, the artist can avoid the tendency to lyricism which the writer cannot altogether escape. But better than either is to see for oneself; that this method is by far the sanest is suggested by the remarkable stream of travel towards the Canadian Rockies. Less than forty years ago they were practically unknown; now, Banff, Lake Louise, Jasper, Yoho, Mount Robson, the Illecillewaet Glacier and the hundred other centres of interest are famous almost to the ends of the world.

A National Park is a large enclosed piece of ground in which whole nations can enjoy themselves.

The Freshfield Group

The limitations of this book to the National Parks and to the railway routes excludes, unfortunately, many magnificent and interesting regions, such as the gigantic "Freshfield group" which lies between Rocky Mountains Park and Jasper Park. In this group are the huge peaks of Mounts Bryce, Athabaska, Alberta, Columbia, Saskatchewan, and others. For the same reason, only very casual references are made to the other ranges—the Coast, Gold and Cariboo.

Some Comparisons

Allusive comparisons, particularly those which covet an established reputation, frequently display an astonishing banality. To speak, for example, of "the Venice of the North" or "the Belgian Shakespeare" is really to be unconsciously humorous. But it is harder to keep Switzerland out of any mountain book than it was for Mr. Dick to banish King Charles' head.

The comparison began, in fact, with the celebrated Whymper, who in a now shopworn phrase called the Canadian Rockies "fifty or sixty Switzerlands rolled into one." Dr. Coleman gives a clearer definition when he points out that neither bulk nor altitude is everything. The Himalayas, the Andes and some of the Colorado mountains are higher; some of the Alps are much more picturesque. Relative height above the valley is much more important than mere size, and in this the Canadian Rockies far surpass many other systems. It is not necessary to go back very far from the railway to see this. A calculation which the writer has made of 44 well-known mountains immediately overlooking one of the railways shows that they average 4,800 feet (practically 50 per cent. of

their height above sea-level) above the track. The Canadian Rockies, again, are rich in glaciers and névé fields, and are generally snow-covered the year round—which the American Rockies decidedly are not.

While the Rockies possess many true Alpine characteristics, they lack the dramatic concentration of the Alps and the charming, toy-like life of Switzerland. But far transcending this, they have very obvious distinctions which Switzerland cannot rival—such, for example, as the magnificent primeval forests from which they rise. "There is a cleanness and virginity", says Coleman, "an exquisite loneliness, and the feeling of having caught Nature unawares at her work. Much of the attraction of the Rockies and Selkirks lies in this sense of the freshness of everything".

It would, I think, be much nearer the truth to say that the Canadian Rockies remind one of Switzerland because they are so different.

Entering the Mountains The Rockies can actually first be seen, from the east, a hundred miles before one reaches Calgary. From Calgary, and especially from the roof-garden of the Palliser Hotel, they can be seen much more clearly, a "dramatic glimpse of a far-flung line of blue, hung among the clouds and quivering in the warm summer air, sharp as a knife blade". Against this lovely, pink-flushed background the dark hue of the evergreen trees that fringe the Bow River stands out in a startlingly stereoscopic effect.

It is up this ancient, glacier-grooved Bow Valley that the traveller will enter the Rockies. The climb is a steep one—something like 1,100 feet in eighty miles. The great stretches of level prairie cease, and the rolling grassy foothills succeed, rising tier upon tier to the base of the great ranges to which they are the outposts. In the lower valley can be seen huge ranches, for this is a great stock-raising country.

Kananaskis is the entrance to Rocky Mountains Park; Gap, eight miles farther and 120 feet higher, is the real entrance to the mountains, for the train swings round a bend between two almost vertical walls of dizzy height, which, seen from the front, seemed to bar further passage effectively. On the right is the Fairholme Range, on the left is Wind Mountain and Three Sisters. The first prominent peak is Grotto Mountain. The striking jagged profile of the Three Sisters, companion peaks that overshadow the little mining town of Canmore, is one of the first sights of the journey. Near Canmore one has the first glimpse of the Hoodoos, queerly eroded pillars formed of hard enough material to withstand the weatherings that have played havoc with the neighboring bank, some of which are ten times as high as a man.

Ahead the great, gray bulk of Cascade Mountain blocks the view; on the left is the long palisade of Mount Rundle, named in honor of an early missionary to the Indians. Here the railway line leaves the Bow for a time, and strikes up the valley of the Cascade river, directly in the face of Cascade Mountain. Passing the animal paddocks, a short run brings one to the little town of Banff.

To obviate inevitable repetition, the heights of mountain, peaks, and other altitudes, will be found at the end of each section.

Rocky Mountains Park

Rocky Mountains Park is the oldest, second largest and (excepting Waterton) the easternmost of the seven mountain National Parks of Canada. It is certainly amongst the best-known of any national parks of the world. No part of the mountain system of America exhibits a greater variety of sublime and romantic scenery, and nowhere are fine view-points and features of special interest so accessible. Good roads and bridle paths are numbered by the hundred.

The park has an area of 2,751 square miles, its greatest length being about one hundred miles. It is bounded on the west by the inter-provincial boundary between Alberta and British Columbia—on the east by, approximately, the first big ranges of the Rockies. The mountains of the park reveal two distinct formations, the line of division occurring at about Castle Mountain. To the east, the ranges rise one behind the other in parallel lines, sloping gently up on the west and breaking sharply off at the crest of the range. They are formed for the most part of rugged grey limestone, the strata being sharply inclined or even turned almost on end. To the west, the rock has been lifted straight in the air so that the strata lie horizontally and the mountains take more massive, block-like forms, with pyramidal or dome-shaped heads.

The principal ranges are the Vermilion, Kananaskis, Bourgeau, Bow, and Sawback ranges; the principal river is the Bow, which, except for a few miles at the western boundary, runs right through the park and roughly bisects it. For chief tributaries it has the Kananaskis, Spray, Cascade and Pipestone rivers. The Panther and Red Deer rivers flow through the northeastern portion of the Park, which includes part of the Bow River Forest Reserves. Of the many beautiful lakes within the park, the principal are Louise, Minnewanka, Hector, Spray, Kananaskis and Bow.

Banff and Lake Louise are the chief centres, the former the administrative headquarters and the largest town between Calgary and Revelstoke.*

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*The first reservation was made in 1885, when, after the discovery of the valuable hot springs at Banff, the Dominion Government set aside an area of 10 square miles. In 1887 this was increased to 260 square miles, and in 1902 to 5,000 square miles; in 1911 it was reduced to 1,800 square miles, but for game protection purposes was recently enlarged to its present area.

The Lake Louise district was known for many years as Laggan—a name that, although still preserved in the name of a mountain group, gradually fell into disuse until in 1913 the official change in the station name to "Lake Louise" firmly identified this beautiful section of the Park with its chief attraction.

Banff Banff is assuredly like Cleopatra, in that "age cannot wither her, nor custom stale her infinite variety", and therein, I think, lies its fascination and its charm. It must inevitably be judged by two standards, both of which are fortunately available to the traveller who penetrates farther into those ranges that bar the way to the Pacific.

The first standard is that of Banff itself: the second is that of the higher and more spectacular regions farther west. Those whose idea of "mountains" has been fostered by the Green Mountains of Vermont, the Laurentian Mountains of Quebec, or the Peak district of England will stand aghast at the immensities of Banff; but those whose idols are the grander, more austere giants of the Selkirks, or perhaps Mont Blanc or the Matterhorn, rather look down upon Banff as "pretty and popular".

Yet that is exactly the secret of Banff. It is everything, without being any one thing absolute. Its situation, in a wide circle of lofty and beautiful mountains, is truly wonderful until one sees for the first time the unearthly gorgeousness of Lake Louise. Its mountains are enormous, but although some of them rise to a height of more than a mile above the floor of the valley, none are of true Alpine character. After a few hours one becomes rather accustomed to mountains at the end of the street instead of sky-scrapers or fields.

But grace, charm, winsomeness, make a greater appeal to the average heart than harder qualities. Banff has no critics because no one wishes it different. The man who said that the Alps were noble and magnificent, but that the finest view to be obtained in them was when one came, at the end of the day, to the brow of the last foothill, and, looking over, saw below a green valley, good grey roads, houses, and blue smoke curling up from chimneys—such a one should spend all his days at Banff.

For this little mountain town of Banff, nestling in its pocket of pearly-grey limestone peaks, embowered in pine forests and lawns, warmed by clear sunshine and kissed by clean air, sung to sleep by the glacial-green Bow River that frisks through its middle, is nothing if not human. It can give the visitor almost everything that he wants except lobster palaces and noise. If his interest is in the outdoors, then all outdoors surrounds him; if it is the study of mankind—or, more probably, of womankind—he will find in Banff a cosmopolitan atmosphere of a remarkable kind, where Broadway rubs shoulders with stolid Indians, and where weary pack-trains coming in off the trail meet tuxedo'd limousines going out.

MOONLIGHT ON THE BOW RIVER, NEAR BANFF.

From a painting by
Charles W. Simpson, R.C.A.

Banff, in fact, provides a very definite lesson in philosophy. It teaches us that although the mountains are so enormous that they make us look and feel like insects, yet mountains can neither draw nearer to one another nor enjoy being what they are.

The Panorama of Banff

Banff occupies a more or less triangular space at the base of a wide circle of lofty, beautiful mountains. Standing at the station a magnificent panorama is to be witnessed. To the north is the grey bulk of Cascade Mountain, towering above the town like (as someone has said) a grim old idol. To the east are Mount Inglismaldie and the heights of the Fairholme sub-range. Still further to the east the sharp cone of Mount Peechee closes the view in that direction. To the left of Cascade rises the wooded ridge of Stoney Squaw.

To the west and up the valley are the distant snowy peaks of the main range above Simpson's Pass, chief of which is the square wall-like crest of Mount Massive. A little nearer to the left is the northern end of the Bourgeau Range, and still nearer Sulphur Mountain. To the southeast is the isolated, wooded bluff of Tunnel Mountain, while beyond the long serrated spine of Mount Rundle blocks the view.

At the Bow bridge an even more magnificent view can be obtained, for the river runs through the centre of the picture; and one who has caught his first glimpse of this picture close to sunset will never forget its breath-taking beauty. The Bow River runs very sedately here; but a little beyond the bridge it frolics over a series of rapids in a narrow gorge for about half a mile, and then leaping in clouds of spray falls some fifty feet almost opposite the Banff Springs Hotel. Turning to the east it sweeps around the base of Tunnel Mountain, and engulfs the darker waters of the smaller Spray River that has come down between Sulphur and Rundle Mountains and which joins it almost at right angles.

From the high elevation of Banff Springs Hotel, in front of Sulphur Mountain, a somewhat different view is obtained, looking across the junction of the two rivers between Tunnel and Rundle to the distant snow-clad barrier of the Fairholme range.

The Town

Banff (permanent population about 2,200, summer population about 6,000) is a government townsite, and possesses many advantages not usually found in a town of its size—broad, well-kept streets, a fine hospital, three churches, a good school, two banks, two newspapers, a theatre, and a number of stores. The office of the Superintendent of the Park is situated in the Museum Building. The station is about one half mile distant from the main street.

The town is laid out on the square plan, the streets being mostly named after animals. The main street is Banff Avenue. To the east of it is the most popular "bungalow" section, where a large number of permanent summer cottages are located, owned or rented principally by prairie people. It will take the visitor a little time to become orientated in Banff, whose geography is apparently twisted, the rivers seeming to flow in the wrong direction.

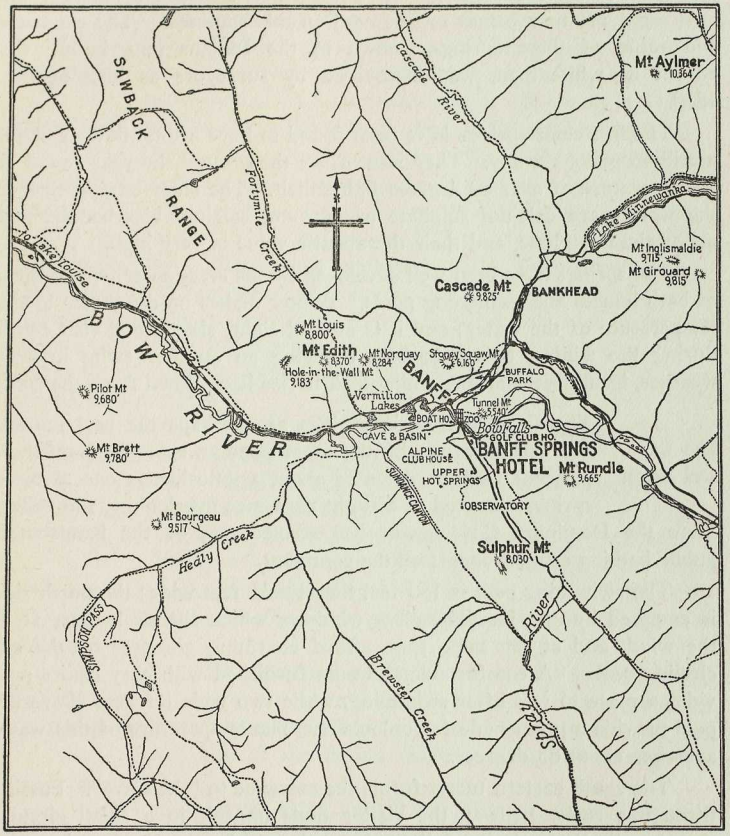
Trails and good roads run in many directions. The chief of them north of the river are (1) up Tunnel Mountain; (2) to Johnston Creek and Lake Louise; and (3) to Lake Minnewanka and Bankhead. Crossing the river to south of the river, roads run (1) to the Cave and Basin; (2) past the Hot Springs up Sulphur Mountain; (3) past the Banff Springs Hotel along the Spray Valley; (4) along the Bow River bank to the Golf Club.

Hotels

Banff offers hospitality to suit all purses and tastes. It has eight hotels, ranging in size from 30 rooms to 280. Of these the largest and most important is the Banff Springs Hotel, belonging to and operated by the Canadian Pacific Railway. This hotel, one of the most luxurious and best known of the whole continent, is beautifully, even strikingly, situated on a bluff between the Spray Valley road and the Bow River. Behind it is Sulphur Mountain; in front is the wonderful Bow Valley, framed between Cascade and Tunnel Mountains—in the immediate foreground a beautiful double swimming pool and a front lawn that ends suddenly on the verge of a cliff. The hotel's terrace, magnificent dining room, and spacious lounges give hospitality to crowds from all parts of the world.

This hotel and some of the others are open during the tourist season only (from mid-May to the end of September), though with the development of the winter sport season some of those which used to close in winter re-open for a few weeks in January and February. Accommodation can also be secured in private houses.

A large number of furnished cottages and house tents are available during the summer months, containing usually all housekeeping necessities except linen, and leased at fairly moderate rents considering the shortness of the season. The Government has a camp site at the junction of the Bow and Spray rivers for those who want to live under canvas: camping permits can be secured from the Superintendent's office for a nominal fee.



BANFF AND ITS SURROUNDINGS.

The Hot Springs Had Banff not become famous for its beauty it must have become famous for its hot springs, which are amongst the most important to be found on this continent. The existence and value of these springs, known to the Indians long before the advent of white men, was discovered by surveyors as long ago as 1880.

The five chief springs have been found to have a total flow of about a million gallons a day. They issue from the ground the year round at a temperature of over 90 degrees Fahrenheit. The chief constituents of the waters are calcium sulphate or gypsum, calcium bicarbonate, and magnesium sulphate, and their therapeutic value is very high.

The springs have been well developed by the erection at two of them of bath houses and swimming pools. Winter makes no difference to the temperature of the water; and it is an odd sight, should one visit Banff during the winter, to see bathers enjoying an outdoor swim in zero weather, in utmost comfort, while thick icicles hang down from the roof.

The Cave and Basin The Cave and Basin springs are perhaps the best known, and certainly one of the most popular spots in Banff. A pleasant walk or drive of about a mile brings one to these springs, situated at a slight eminence overlooking the valley. Here the Dominion Government has erected one of the handsomest public bathing establishments on the continent.

The swimming pool is 150 feet long by 35 feet wide; the north side is enclosed by massive plate-glass windows which shelter bathers from the wind, and at the same time afford charming glimpses of the encircling peaks. A comfortable sunroom furnished with easy chairs provides a place to rest after swimming, while two wide terraces above the pool provide a promenade for onlookers. The temperature of this water averages about 85 degrees.

The south-eastern turret forms the entrance to "the Cave". Passing through a rocky hallway the visitor finds himself in a small circular chamber lit by a shaft of light from the roof. As the eye becomes accustomed to it, one sees a pool of greenish white water, from two to five feet deep, occupying the greater part of the floor, and freakish bits of natural carving on the walls. Nearly 300 gallons of water per minute bubble up; the overflow serves to renew the water in the swimming pool.

Behind the Cave is the Basin Spring, flowing into an open pool that was the original swimming pool. The temperature of this water is 94

degrees, 9 degrees higher than that of the Cave. This spring, too, feeds the big swimming pool.

The Middle Springs

Two miles from Bow bridge up Sulphur Mountain by a good road brings one to the Middle Springs, well worth a visit if only for the magnificent view of the Bow Valley which one obtains from this height. These springs, as yet undeveloped, have an estimated flow of about 6,000 gallons per hour.

The Upper Spring

About three miles up Sulphur Mountain by an excellent road that winds up from Bow River through pine forests or by trail from Banff Springs Hotel, is the Upper Spring, situated at an altitude of 5,130 feet and about 500 feet above the valley. This is the warmest of the five springs, with a temperature of 115 degrees, and it is here that most of the invalids come. Springing from the mountain side, the water is carried down to the Government bath house 100 feet below. The latter is a small but completely equipped establishment containing a swimming pool, hot and cold shower baths, steam rooms, etc.

A short distance away on the hillside is another spring, of smaller volume, known as the Kidney Spring.

Banff Spring Hotel Pool

The Banff Springs Hotel has its own beautiful pools just below the terrace. The inner one, of hot sulphur water piped from Sulphur Mountain, is protected on three sides by heavy plate glass windows, the fourth side being dressing rooms: adjoining it, on the crest of a cliff that drops away into sheer space, is the outer pool, a perfect semi-circle of fresh cold water.

Museum, Zoo and Buffalo Park

The Museum, on Banff Avenue close to the bridge, contains a very good collection of big game and smaller animals, as well as of the bird, fish and plant life of the region, Indian relics, and examples of Indian handicraft.

Along the banks of the river, behind the Museum, is the Zoo, where in large cages may be seen a most interesting collection of wild animals, including black, brown, grizzly and Polar bears, lynx, martens, wolverines, coyotes, foxes, monkeys and other animals.

In an enclosed park, about one and one half miles from the town on the Lake Minnewanka road, is the Animal Paddock, containing a number of specimens of native animals, such as buffalo, elk, moose, mountain sheep, mountain goat, and deer. This buffalo herd, and that

at Wainwright Park,* comprise the sole remains of the million buffalo which roamed the Canadian prairies fifty years ago. It is generally unsafe to approach the buffalo if one is on foot; but when one is riding or driving, there is no danger at all; local horses are not at all frightened of these huge, uncouth animals, and it is a customary thing to drive right in amongst the herd to within a few feet of the buffalo.

Boating

The quiet reaches of the Bow river, from Banff to about eight miles above, offer delightful opportunities for boating and one of the best ways of viewing the panorama of peaks on both sides of the valley. The river winds between low branches bordered with overhanging trees: to the right can be seen the sharply serrated outline of the Sawback range and the slim spire of Mount Edith, to the left are the slopes of Sulphur Mountain and the great bulks of Mount Bourgeau, Mount Brett, and Pilot Mountain.

During the season launches leave the wharf (100 yards from the Bridge) several times daily. Row boats and canoes can also be rented. One charming paddle-trip is to the Vermilion lakes, another is to Echo River.

For the expert canoeist two trips which offer fine scenery, excitement and excellent fishing are the upper and lower reaches of the Bow. For the first the canoe should be shipped to either Castle or Eldon by train, and the run made from that point to Banff—a trip that can be done in one day in highwater. For the lower reaches, the canoe may be taken below the Bow Falls and the run made to the junction of the Bow and Kananaskis rivers at Seebe. On both these trips it is safer to take guides, for the rapids are dangerous for novices.

Lake Minnewanka affords excellent boating, steam launches being also available.

Golf

The Banff golf links furnish a perpetual reason for not keeping one's eye on the ball! Situated as they are along the Bow, about ten minutes' walk from the Banff Springs Hotel, at the foot of Mount Rundle, they have the most magnificent backdrop and the highest altitude of any course in Canada. They occupy the site of the headquarters of the extinct Snaring Indians, whose flint spears and arrowheads have been unearthed near the club house.

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*The buffalo at Banff number 113; those at Wainwright National Park over six thousand, the largest herd on the continent. Wainwright (about 130 miles east of Edmonton) is a fenced enclosure of 160 square miles, but being a prairie park has been considered a little outside the scope of the present book.

The course was originally a nine-hole one, but in 1920 was enlarged to 18 holes. New teeing grounds have been made at all the holes, many of the greens considerably extended, and the fairways widened and cleared of scrub. A small but comfortable clubhouse meets the needs of visitors, and a professional is in attendance. A small fee is charged. The course is under the control of the Parks Department.

Winter Sports

Banff forms a wonderful setting for winter sports. Winter usually sets in about the middle of November, and lasts until the middle of March; and in many ways the mountain world, held like a sleeping beauty in the spell of the Frost King, seems lovelier than in summer. Clear, sharp frosts, followed by "chinook" winds, a dry, windless atmosphere, snow-clad peaks glittering in the sunlight, spruce and pine trees bowed down by snow—such is the background against which the vivid fun and healthfulness of a winter carnival can be staged.

The Banff people have not been slow to appreciate that fact. Their one disadvantage is the long distance of Banff from any centre of large population; were they, for example, situated similarly to the White Mountains, or many other winter-sports resorts with which they must compete, within close range of really big cities, they would probably have as fine a winter season as they now have a summer season. The proximity of the city of Calgary is hardly sufficient. But even in spite of this handicap Banff is attracting many long-distance visitors. Its two-weeks' carnival of winter sports—ski-ing, tobogganing, curling, snow-shoeing, ski-joring, skating and sleighing—is becoming very widely known, and attracts contestants from all over the continent and of international reputation. Some of the hotels are open during the winter.

Indian Pow-wow

There are a number of Stoney Indians in the Morley reservation, near Banff. An annual "Pow-wow" is held during the month of July, when hundreds of these stalwart braves, decked in war paint, beads, buckskins, and feathers, assemble with their families for the great parades and programme of sports, races, etc.

Automobile Regulations

Automobiles are now allowed on all carriage roads in Rocky Mountains Park except the Spray Valley road. They cannot, however, cross the western border of the park into Yoho Park.

Walks Around Banff There are a large number of beautiful walks, trails and roads leading from Banff, offering excellent "hiking" outings. Besides those close in town, there may be mentioned:—

Along the Spray Valley road to Spray Bridge.
To the Golf Links, along the south side of the Bow.
To Sundance Canyon, past the Cave and Basin.
Up Stoney Squaw.
To Bow Falls, along the south side of the Bow, passing the fish hatchery.
Up Tunnel Mountain—the most accessible point from which some conception of the Bow Valley can be obtained. The road is a continuation of the previous walk. The bowl-shaped plateau at the top is a favourite picnic spot. (Return trip 2 to 3 hours.)
Up Sulphur Mountain, Meteorological Station at summit. (Return trip 4 to 6 hours.)
Up Mount Rundle, giving a fine view of the distant Mount Assiniboine. (Return trip 6 to 8 hours.)
Up Cascade Mountain. The final climb is rather stiff. (Return trip, 8 to 10 hours)
To the Buffalo Park.

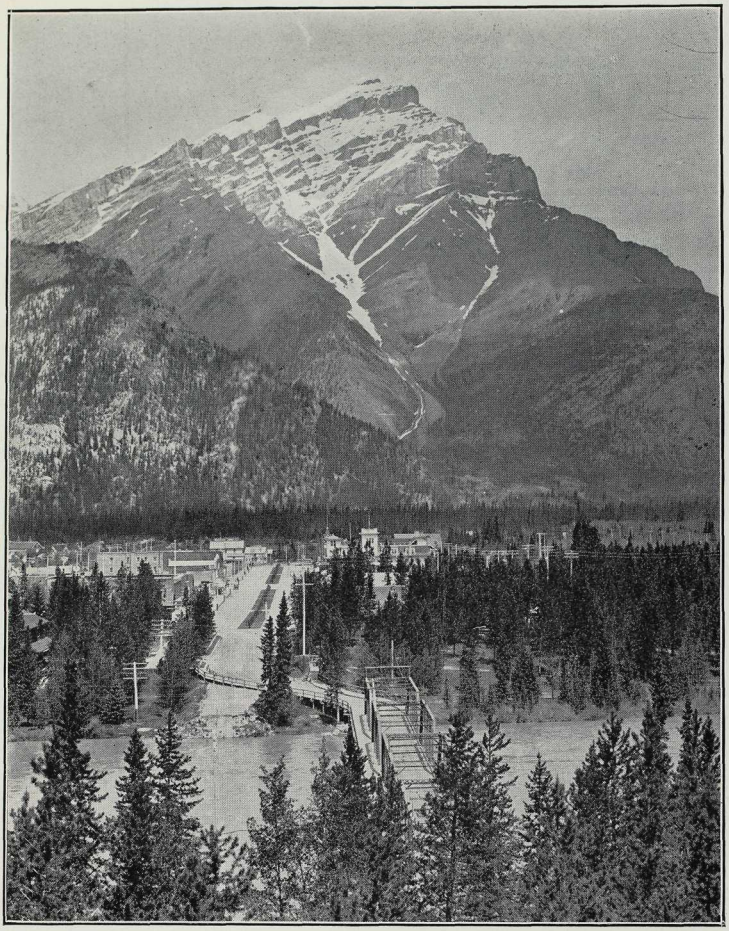
Really vigorous walkers may also care to tackle some of the excursions listed under "Drives".

The Alpine Club of Canada inaugurated in 1920 a series of "public walks", the first of its kind in the Rockies, which have proven so successful that they have already become an institution. These walks, which are open to non-members of the Club, leave Banff at regular intervals, such as twice weekly during July, August and September, for Mount Assiniboine. By means of comfortable camps at intermediate points, the journey can be made in three days. Charges are moderate. (For fuller information, address A. O. Wheeler, Banff).

Climbing While not a centre for true Alpine climbing, Banff offers a splendid field for the amateur. Sulphur, Cascade and Rundle are easy climbs that require no guide. Mount Norquay affords good rockwork; Mount Edith and Mount Louis are very interesting climbs, but too difficult for beginners. Mount Aylmer, near Lake Minnewanka, is the highest peak in the immediate neighborhood. Assiniboine should not, of course, be attempted by any but experienced climbers working with guides.

Drives Nearly 200 miles of roads radiate from Banff, and with the exception of the Spray Valley road, which is reserved for the use of horses, all these roads are open to automobiles.

Motors and carriages can be hired in the town, both with and without drivers. The charges per hour or per excursion are regulated by



CASCADE MOUNTAIN, THE BOW RIVER, AND BANFF.

tariffs published by the Park Department. Rates are fixed on a combination of time, mileage, or number of persons carried.

The shorter drives around the town are very popular. On some of them motor tally-hos starting at regular times are used; but on all of them carriages and automobiles may be engaged for any hour.

Most of the walks already mentioned can be made either entirely or partly by driving. Other popular excursions are as follows:

Lake Minnewanka This beautiful lake lies in a deep valley between Mounts Inglismaldie, Girouard, Peechee, Saddle, Costigan, Aylmer and Cascade. The drive there is a very pleasant one, past the buffalo park, the base of Cascade Mountain, and through Bankhead, an old mining town.

The name Minnewanka, a Stoney Indian word meaning "Spirit Water", is ascribed to the legend of a monster fish more than a mile long; and it replaces the former name of "Devil's Lake". The lake is about 13 miles long and never more than two miles wide, and its shape is rather like the letter S. Two small chalets provide accommodation for visitors, and a large launch makes return trips up the lake twice daily. Small row boats may also be hired.

Its greatest beauty lies in the wonderful blue of its waters, recalling somewhat the color of the Mediterranean. It is one of the most popular fishing spots near Banff, the home of a very fighting species of trout running up to an uncommon size, the usual method of taking which is by trolling. The valley is particularly rich in Indian associations, having been the favorite hunting grounds of the Crees and later of the Stonies.

Banff to Lake Minnewanka, 8 miles.

Johnston Canyon One of the best-known motor drives around Banff is that westward along the valley of the Bow, roughly paralleling the railway line to Lake Louise. The route from town is across the tracks, around the Vermilion Lakes, past the foot of Mount Norquay, Mount Edith, and the Sawback range to Johnston Creek. (For description of scenery, see Railway Journey, page 31).

Johnston Creek, the objective of a popular excursion, comes in from the north opposite Pilot Mountain. Leaving the motor, the trail is taken up the canyon, a walk of about half a mile. The little stream, so clear that almost every stone on its bottom can be seen, trickles through rocky walls that in some places are over 100 feet high and less than 20 feet apart. At the upper end the stream plunges in a charming fall.

Banff to Johnston Canyon, 17 miles.

To Lake Louise The journey can be continued west of Johnston Creek to Castle, still on the north side of the Bow, past the immense bulk of Castle Mountain, past Temple Mountain, and so on to Lake Louise station. This extension from Castle is of fairly recent construction, and provides a really magnificent drive.

Johnston Creek to Castle, 4 miles.
Castle to Lake Louise, 20 miles.

Banff-Windermere Road But undoubtedly the finest automobile drive in the whole Rocky Mountain region is that to Windermere, in the Columbia Valley (see page 52). This road, begun several years ago as a joint undertaking of the Dominion and British Columbia governments, but delayed by war reasons so that it was actually completed only in 1922, takes one literally over the backbone of the continent. From Banff the road crosses the Rockies through the Vermilion Pass, and then, after threading the Brisco Range through the Sinclair Canyon, descends to Lake Windermere, the source of the mighty Columbia River, which lies at the lowest point between the Rockies proper and the smaller Selkirk range. The altitude of Lake Windermere is 1,900 feet lower than that of Banff.

The route is that to Castle Station. One mile beyond, it crosses the Bow River, and ascends the Little Vermilion Valley. The boundary between Alberta and British Columbia is passed, and the Kootenay Park entered. The Vermilion Pass has an altitude of 5,264 feet, with an easy grade on both sides. Storm Mountain on the east, and Boom Mountain on the west, guard the pass, with Mount Whymper showing through the gap. A few miles over the summit there is a fine canyon, Marble Canyon, worn by the waters of a creek a good hundred feet into the earth and scarcely thirty feet wide.

The course is still along the Vermilion river, following the windings of that stream between the Vermilion Range and the Mitchell Range, and turning round to join the southbound Kootenay River. Then it bends west between the Brisco and Stanford Ranges, and joins the government road from Golden to Windermere opposite Horse-Thief Creek.

A series of three small camps is being established along this automobile road.

Castle to Marble Canyon, 15 miles.
Marble Canyon to Windermere, 68 miles.
Total, Banff to Lake Windermere, 104 miles.

Pony Trips Every excursion described under the heading of walks or drives can also, of course, be made on horse-back; but in addition to these there are a number of others

that can be made in no other way. A trail trip into the depths of the mountains forms, indeed, the most enjoyable way of visiting beautiful spots that would not otherwise be easily accessible. There are nearly 700 miles of trails in Rocky Mountains Park, a large part of which radiate from Banff. More than a score of trips may be taken, practically every one of which will yield good fishing, wonderful scenery, and a glimpse into the heart of nature which will be worth "more than many books".

The mountain pony, mountain-bred, fool-proof, untiring, can be ridden by practically anyone, whether he has ever before been on a horse or not. It is customary, on all long trips and even on some short ones, to hire guides, and make up a pack-train. A list of licensed guides who will outfit a party for any length of time is kept at the Government Information Bureau.

Spray Lakes

One of the most popular trail trips is to Spray Lakes. The route is south-easterly from the town, following the wooded valley of the Spray river between Rundle Mountain and Sulphur Mountain. At a distance of about six and a half miles from Banff the trail divides, the right branch leading to the foot of the lower Spray Lake, the left branch over White Man pass, between the Goat range and the Three Sisters, to the upper and lower lakes.

The scenery along the way is fine, and the fishing at the lakes is excellent. Cut-throat and Dolly Varden trout run to a large size, both in the lakes and in the several streams flowing into and from them. July and August are the best fly-fishing months. Rocky Mountain whitefish are also plentiful.

There is a comfortable log cabin at the Spray Lakes for the accommodation of anglers.

Banff to Spray Lakes, 30 miles.

Kananaskis Lakes

This is an extension trip from the foot of Spray Lakes, up the pass between the Kananaskis and Spray Lakes to the Summit, thence down the north fork of the Kananaskis river. These lakes, situated near the eastern boundary of the park, are united by the river; the upper lake is a beautiful sheet of water dotted with wooded islands and encircled by peaks, the lower noted for its very large trout. Between the two is a waterfall.

Another extension trip from Spray Lakes is up Bryant Creek to the foot of Mount Assiniboine. Thence the journey can be continued down Brewster Creek to Healy Creek and Banff.

From foot of Spray Lakes to Kananaskis Lakes, 23 miles.
From foot of Spray Lakes to foot of Mount Assiniboine, 18 miles.

Mount Assiniboine This famous peak, the loftiest in the park and the goal of all ambitious climbers, has been called the "Matterhorn of the New World", a name that—but for the fact that all geographical parallels are sometimes ill-timed—is singularly appropriate. In figuration, the prevalence of sudden storms, and the difficulty of its ascent it bears a striking resemblance to the great peak that was conquered eventually by Whymper.*

From 1893 to 1901 numerous unsuccessful attempts to climb it were made; in the latter year the Reverend (now Sir) James Outram succeeded. Since then it has been climbed several times.

From the top of Sulphur Mountain its beautiful pyramidal head can on a clear day be seen towering shoulder high above the surrounding mountains.

Assiniboine may be reached by three different routes. First, by the Spray Lakes and Assiniboine Pass, already described. Secondly, by Brewster Creek, leaving Banff past the Cave and Basin and Sundance Creek (up which a short side-trip may be made to Sundance Pass) and up Brewster Creek to Bryant Creek.

Thirdly, by Simpson Pass. This beautiful route follows the historic trail of Sir George Simpson of 1841. It leads in a south-westerly direction past the Cave and Basin, along the Bow River, and up Healy Creek to the summit. The pass is a beautiful Alpine tableland sprinkled with a million flowers. From the summit a descent is made along the south fork of Simpson River to the foot of the mountain. An extension can be made by following the Bow River west past Healy Creek to Red-earth Creek, there up the east fork of that creek to rejoin the Simpson trail. A combination of these routes to Assiniboine can be made.

Mount Assiniboine lies partly in Alberta and partly in British Columbia. Where the provincial boundary runs the park limits end; but to conserve the beauties of this region the British Columbia government has created a provincial park, Mount Assiniboine Park, immediately adjoining Rocky Mountains Park, and with an area of some 20 square miles.

Banff to Assiniboine via Spray Lakes, 41 miles.
Banff to Assiniboine via Brewster Creek, 30 miles.
Banff to Assiniboine via Simpson Pass, 37 miles.
Healy Creek to Red-earth Creek, 23 miles.

To Sawback This is a fine trip westward of Banff, beginning by the Banff-Castle road past the Vermilion Lakes as far as the pass between Mount Norquay and Mount Edith. The

*Fortunately it has no such list of fatalities as the Matterhorn.

trail over this pass meets Forty-Mile Creek, which it follows past Mystic River to the Sawback Lake, in the heart of the Sawback range. Thence it continues over the summit and down Sawback Creek to its junction with the Cascade River.

This excursion may be continued in two directions—firstly, down the Cascade river south-east to Lake Minnewanka (see page 25), or secondly, from the Cascade River, up Cuthead Creek, over the summit, and down Wigmore Creek to the Panther River. Farther down the Cascade River the Stoney Creek trail can be followed to the head of the South Panther River.

Banff to junction of Sawback Creek and Cascade River, 25 miles.
Sawback Creek to Minnewanka, 24 miles.
Mouth of Stoney Creek to South Panther river, 11 miles.
Cascade River trail via Cuthead Creek to Panther river, 8 miles.

Ghost River

This interesting trip begins at Lake Minnewanka. The trail leads round the shore of the lake past Aylmer Canyon and out through Devil's Gap to the Ghost River. The scenery is exceptionally beautiful, and the stream is one that disappears into a subterranean channel for a dozen miles.

An alternative return route is from the east end of Lake Minnewanka, south-westerly along Carrot Creek to the Calgary-Banff road.

Lake Minnewanka to Ghost River, 17 miles.
Carrot Creek route, Ghost River trail to Banff, 22 miles.

The Red Deer Country

A longer trip which requires from three weeks to a month is that up the Cascade trail to the Panther and Red Deer Rivers, returning by the Pipestone to Lake Louise. This is a delightful trip through one of the wildest and least known parts of the park.

Red Deer Trip, 140 miles, 3-4 weeks.

PRINCIPAL ALTITUDES AROUND BANFF.

(in feet)

Assiniboine, Mount	11,860
Aylmer, Mount	10,365
Ball, Mount	10,825
Banff Station	4,534
Banff Springs Hotel	4,625
Bonnet Peak	10,290
Boom Mountain	9,015
Bourgeau, Mount	9,517
Brett, Mount	9,750
Canmore	4,295
Cascade Mountain	9,826
Castle Mountain	9,030
Cave and Basin	4,598
Costigan, Mount	9,600
Douglas, Mount	11,015
Edith, Mount	8,370
Fairholme Range North Peak	9,305
Fairholme Range South Peak	9,205
Gap, The	4,248
Girouard, Mount	9,785
Grotto Mountain	8,870
Hole-in-the-Wall Mountain	9,184
Hot Springs, Upper	5,132
Inglismaldie, Mount	9,715
Kananaskis Lakes, Upper	5,550
Kananaskis Lakes, Lower	5,460
Kananaskis Pass	6,500
Kananaskis Range	8,000-9,000
Louis, Mount	8,800
Marble Canyon	4,813
Massive, Mount	9,950
McConnell, Mount	10,250
Minnewanka, Lake	4,800
Norquay, Mount	8,225
Peechee, Mount	9,615
Pigeon Mountain	7,845
Pilot Mountain	9,680
Rundle Mount	9,665
Sawkack Range (Summit)	10,000
Simpson Pass	6,650
Slate Mountain	9,000
Spray Lakes	5,396
Stoney Squaw	6,160
Storm Mountain	10,309
Sulphur Mountain	8,030
Three Sisters, East Peak	8,840
Three Sisters, West Peak	9,734
Tunnel Mountain	5,540
Vermilion Lakes	4,521
Vermilion Pass	5,264
Vermilion Range (Summit)	9,855
Whymper, Mount	9,319
Wind Mountain	10,100

LAKE LOUISE

Banff to Lake Louise From Banff to Lake Louise the railway continues along the banks of the Bow, winding in and out of its forested valley and skirting the Vermilion Lakes. In front are Mount Massive and the snow peaks that enclose Simpson's Pass. A sharp turn to the right, and the great heap of snowy ledges that form the eastern crest of Pilot Mountain, landmark of mountain trappers and visible from either end of the Bow, comes into view. Hole-in-the-Wall Mountain, on the right, is so named for the cavern that runs into it for 160 feet.

About sixteen miles from Banff is Castle Mountain, a sombre precipice rising sheer above the railway for over 4000 feet and christened thus because no imagination whatever is required to see in it the outlines of the towers and battlements of some ancient fortress. This mountain overlooks the railway for almost eight miles. At the base was once a mining camp called Silver City, the site of which was used during the Great War as an internment camp for alien enemies.

East of Castle Mountain the bare, rugged and sharply serrated Sawback Range is seen to the right, with a spur called the Slate Mountain. At Eldon the whole array is in full view. Turning to the left, and looking backwards first in a semi-circular sweep, one sees Pilot Mountain, Copper Mountain, Mount Brett, the gap of Vermilion Pass (where the continental watershed sends the Vermilion River westward to the Kootenay), the snowy dome of Mount Ball, and Storm Mountain.

Due west, loftiest and grandest of all, towers Temple Mountain, a great snow-bound mountain whose crest exhibits precipitous walls of ice flashing blue on the sunlight. A little to the right of this peak is Mount Lefroy. Very shortly thereafter the pretty chalet-like station of Lake Louise is reached.

Situated as it is in the long trough between two ranges, the station gives little inkling of the lake which has, without a doubt, become one of the most celebrated beauty-spots of the world. Lake Louise lies to the south-west, over the crest of the mountain palisade, and is invisible from the railway.

The journey thither is made either by carriage road or by the gasoline light-railway that runs in at the other platform. The climb is a steep winding one—640 feet in 3½ miles—and affords some magnificent back-glancing views of the amphitheatrical Bow Valley. The road is

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For altitudes around Lake Louise, see end of section.

between tall pines, above which glimpses can be caught of the noble head of Mount Temple; the air is cool and sweet with balsam-scented breezes, and full of the music of tumbling brooks. Turning a corner the first glory of the lake bursts suddenly upon one.

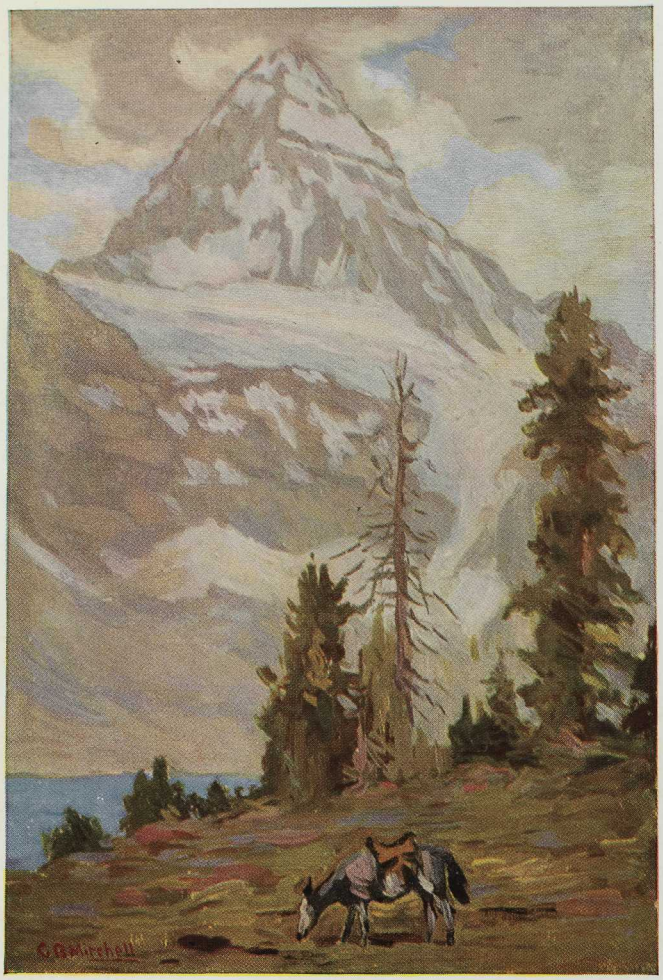
Lake Louise

The problem, in writing of Lake Louise, is to keep from overstraining one's adjectives. That this has frequently been done *ad absurdum,* a survey of the prose and poetical contributions to the hotel register will reveal.

But even if we denied affirmation to these rhapsodies, by the negative method of pitching our own thoughts in a low key, we should be forced to recognise that Lake Louise is one of the few "sights" that "come across" on first impressions. So many of these much-vaunted, much-advertised places, especially those with which are mingled memories, traditions, or great associations, are rather disappointing when one sees them first. Any traveller could resurrect from his recollections a long list of these disappointments, and their names would include some of the most hallowed sights and shrines of the world. But Louise lives up to all its advertisements, and all its pictures, by figuratively knocking one down with the truth of them.

Louise—which is named for that royal princess, daughter of Queen Victoria who became the wife of the Marquess of Lorne, once Governor-General of Canada—is a narrow, roughly elliptical lake about one and a half miles long and one half-mile wide. Fed by glacial streams and brooks, and with a gentle overflow, its surface is as calm and as unruffled, almost, as glass. It lies in a pocket between high mountains, which dip into it for the most part gently. These mountains are deeply wooded as far up as the timber line. At the far end, thrown into greater perspective by the hump of Mount Whyte, which cuts across the picture, is a triangular mountain down which a glacier creeps into the lake.

So far nothing remarkable: but we will come to the coloring. Lake Louise is the triumph of pure color values, of pure tones that are not cross-tints. Some people say it is rather theatrical, rather like a back-drop painted in vivid tones and lit by golden lights; be that as it may, it is a combination that very few scene-painters would dare to compose, and that very few artists have succeeded in translating to canvas. The water, intense in color, sweeps through green, blue, amethyst and violet, undershot by suggestions of gold, and constantly altering—altering from hour to hour, from day to day, and from summer to fall. At either side the enclosing cliffs have a more sombre hue, principally the deep green of the pine-trees.



MOUNT ASSINIBOINE.
Sometimes called the Matterhorn of the New World.

From a painting by
G. Bertrand Mitchell.

At the far end majesty intrudes itself in the gleaming glaciers that drop down from Mount Victoria and the lofty, ice-crowned head of Mount Lefroy. Victoria is so situated that for the greater part of the day it catches the full glory of the sun. Its snow-fields and glaciers stand out in a dazzling whiteness which, with the blue sky and the fleecy clouds overhead, are reflected in the lake. Finally, in the immediate foreground, terraced lawns and poppy gardens, formally planned in defiance of all theory but actually an exact harmony, slope smoothly into the water.

Such is Lake Louise, the "pearl of the Rockies". If we have purposely written in subdued tones, it is because one who has not seen it would not believe that the splashing beauty and massed colors of it almost strike one dumb.

The Panorama of Lake Louise

The peaks encircling Lake Louise, as seen from the Chateau, are from left to right:—Saddleback, Fairview, Lefroy, Victoria, Collyer, Pope, Whyte, the Devil's Thumb, the Needles, the Big Beehive, Niblock, St. Piran, and the Little Beehive. The Victoria glacier lies between Lefroy, Victoria, Collyer and Pope. Mounts Haddo and Aberdeen cannot be seen from the Chateau: one needs to walk about one half-mile round the lakeside before catching sight of them. The Mitre is not seen until the lower Victoria glacier is reached.

The Chateau

The Chateau Lake Louise would claim one's attention as a beautiful hotel were it set down in the midst of a crowded city; but situated as it is, it does not fall short of exciting one's spirited admiration. Begun in the 'nineties as a primitive wooden chalet, it has grown with the years, and with its amazing popularity, into its present magnificent form—or rather, two forms, for the truly modern reinforced concrete annex stands cheek by jowl with the older gable-roofed wooden structure. With its spacious fire-placed lounges, its enormous flower-hung plate glass windows, its lawns, its poppies, it is a hotel that fitly complements, as few other hotels do in such remarkably consonant taste, the scene of beauty upon which its "magic casements" look.

The Lakes in the Clouds

Lake Louise is itself a "lake in the clouds"; but the name is usually reserved for the two beautiful smaller lakes that nestle up in the mountain ranges, a thousand and more feet higher. To these lakes is one of the most

popular of all excursions from the Chateau—one that is not too hard a walk or that can, alternatively, be made by sedate mountain pony.

The trail is a good one, well kept and perfectly safe. Leaving the west end of the Chateau it rises gradually, winding amongst woods through which frequent glimpses can be caught of Louise. At an altitude of 980 feet higher than the Chateau is the first lake, Mirror. These two lakes are good examples of "cirque" lakes, deep, steep-walled recesses caused by glacial erosion. The trail continues upward to Lake Agnes, where a cosy little rest and tea house will reward those who have climbed so far up into the clouds.

Lake Agnes has been called the "Goat's Looking Glass", from the herds of wild goats which formerly frequented its shores. One may sometimes hear near it still the shrill whistle of the marmot and occasionally see a goat or two.

A pretty cascade known as the Bridal Veil Falls tumbles over the lip of the lake and goes dashing down towards Mirror Lake. The view from this edge of the lake is magnificent. In a semi-circle at the back of us are the gigantic mountains, which seem, the higher we go, to increase in size; in another semi-circle in front is the broad floor of the Bow Valley, with the Bow River a twisted thread. Below is Mirror Lake and, farther, Louise.

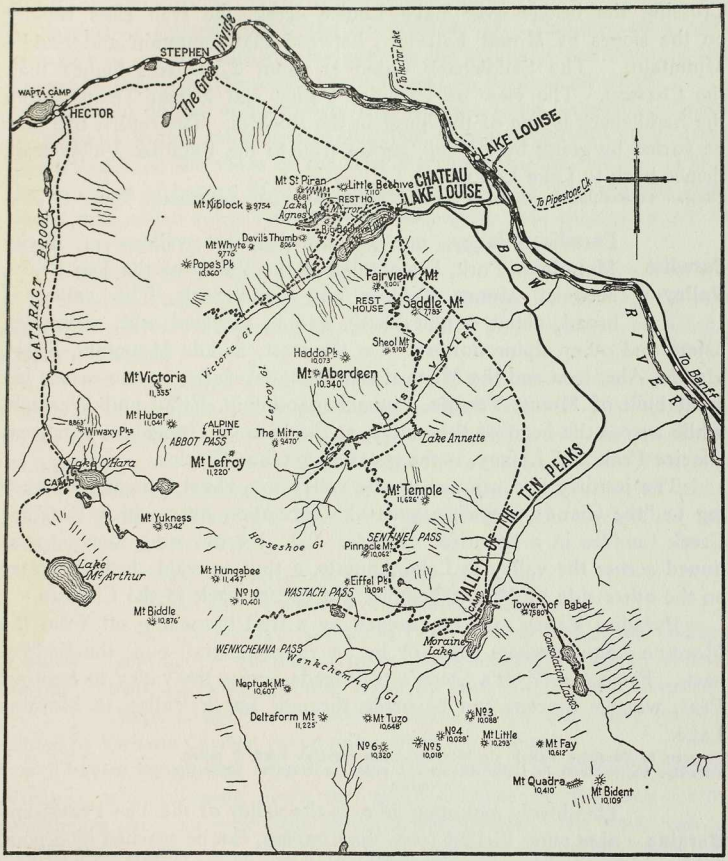
Chateau to Lake Agnes 2½ miles.

From Lakes in the Clouds

From Mirror Lake, the Upper Glacier Trail follows round the face of the Big Beehive to Look-Out Point, and through the Plain of the Six Glaciers on to the Victoria Glacier, just about a mile beyond Look-Out Point. Or one may take a short cut down to the Lower Glacier Trail, and return to the Chateau along the lakeside, a distance of two miles from the junction of these two trails.

From the Plain of ths Six Glaciers there is a new trail towards the north peak of Victoria to an elevation of over 8,000 feet. A wonderful view is obtained from this point. From Lake Agnes rest-house one may walk or ride along the lake, right up to the little observatory on the Big Bee Hive, returning by a trail down the opposite side of this mountain, joining the Upper Glacier Trail just beyond Look-Out Point. From Lake Agnes one may walk to the top of the Little Beehive, and the energetic will find an easy path to the summit of Mount St. Piran.

Lake Mirror to Look-Out Point, ½ mile; or to summit of Little Beehive, 1 mile.
Look-Out Point to Lower Glacier Trail, 1¼ miles.
Lake Agnes to summit of Mount St. Piran, ¾ mile; to summit of Little Beehive, ½ mile.



THE LAKE LOUISE REGION.

Saddleback Another excellent walking or pony excursion, a little longer than to Lakes in the Clouds, is that to the Saddleback. Crossing the bridge over Lake Louise creek, the trail rises rapidly on the slopes of Mount Fairview, between that mountain and Saddle Mountain. The Saddleback Cabin is about 2,500 feet higher than the Chateau. The view of Paradise Valley and Mount Temple from the Saddleback is one of the finest in the Rockies. The return trip may be varied by going by a steep, zigzag trail to the Paradise Valley trail, thence back to Lake Louise.

Chateau to Saddleback Cabin, 2 miles. Saddleback Cabin up Paradise Valley to Giant Steps, 5 miles.

Paradise Valley Paradise Valley, one of the loveliest valleys in Rocky Mountains Park, lies parallel to the Valley of the Ten Peaks, between Mount Temple and Saddleback. The valley is broad, about 6 miles long, and is carpeted with anemones, asters and other alpine flowers. On the west, Saddle Mountain, Sheol, Haddo, Aberdeen and the Mitre rise like citadel walls; on the east is the great bulk of Mount Temple, Pinnacle Mountain, Eiffel and Wastach, while across the head of the valley, at the base of Hungabee, Ringrose, Glacier Peak and Lefroy, is the great Horseshoe Glacier.

The journey is continued up the valley to a short branch trail leading to "the Giant's Steps", a stair-like formation over which Paradise Creek tumbles in a beautiful cascade. The journey may then be continued across the valley to Lake Annette, a tiny emerald sheet of water on the other side of Mount Temple, and thence back to the Chateau.

Paradise Valley may be reached by a trail branching off from the Moraine Lake carriage road, or by an excellent trail over the Saddleback. From the Giant's Steps a trail leads across the valley to Sentinel Pass, whence descent can be made through Larch Valley to Moraine Lake.

Chateau to Paradise Valley via Moraine Lake carriage road, 3 miles.
Paradise Calley trail to Lake Annette, 1 mile; to Moraine Lake through Sentinel Pass, 5 miles.

Moraine Lake This lovely mountain lake, in the valley of the Ten Peaks, and nine miles distant from the Chateau, can be reached by a good road either by automobile (regular trips every day) or pony. The road winds through the forest on a high shelf above the Bow Valley, at the base of the massive Mount Temple.

The tremendous semi-circle of the Ten Peaks, on the east side of the valley, presents a jagged profile that makes a most majestic view. Not one of them is less than 10,000 feet in height; number Eight is 11,225

feet. They are named after the ten numerals of the Stoney language; but four bear also Caucasian names—One (Mount Fay), Two (Mount Little), Seven (Mount Tuzo) and Eight (Mount Deltaform)—the last because of its resemblance to the Greek letter D. Standing off a little as a sort of outpost, and not included in the bright constellation, is the Tower of Babel, an interesting rock formation of unusual shape.

In front of this amphitheatre lies Moraine Lake, exquisitely tinted in color, its waters sometimes so still that they reflect every twig above its surface. On the shore of the lake is a camp and tea house. This is the only sign of human life in a landscape of age-old wildness and loneliness, than which (says Outram) no other scene "has ever given me an equal impression of inspiring solitude and rugged grandeur".

Between peaks Nine (Neptuak) and Ten (Wenkchemna) is the Wenkchemna Pass, the route to Prospector Valley, Tokumn Creek, and Vermilion River. Projecting down the valley is the tongue of Wenkchemna Glacier.*

About three miles to the south-east, by a trail around the Tower of Babel, is Consolation Valley and Lakes, another beautiful little spot that well repays a visit. The valley is green and smiling, with an abundance of alpine flowers; at its head are Mounts Bident and Quadra. The twin lakes contain a plentiful supply of rainbow and Dolly Varden trout, which will take almost any bait, also cut-throat trout, a vigorous fish which takes the fly in July and August.

Chateau to Moraine Lake via carriage road, 9 miles.
Moraine Lake Cabin to Consolation Lakes, 2 miles.
Moraine Lake to summit of Wenkchemna Pass, 4 miles.

Victoria Glacier

Along the westerly shores of Lake Louise to the boat landing (one and three-quarter miles) is a delightful walk by a level trail, affording splendid views of Fairview, Haddo, Aberdeen, Castle Crags, Lefroy and Victoria. This walk may be continued to Victoria Glacier (four miles from the Chateau).

The upper glacier rises on the great white summits of Mount Victoria, and following down the upper portions of the peak finally avalanches over the rock cliffs to the lower glacier. The latter can be visited very easily. Leaving the trail, a scramble over thick "moraine" (glacial debris) brings one to the glacier's forefoot. The lower portions are all flat and free from crevasses, and the novice should not venture out except under the direction of a competent guide. Avalanches fall

*Although a small glacier, this is one of the few which are advancing and not in retreat.

several times an hour on a hot day, a small percentage of which fall into Abbot Pass, between Victoria and Lefroy; owing to the frequency of these the pass is sometimes known as the "death trap", although it can safely be traversed during the early part of the day before thawing begins. The ice is from 200 to 250 feet thick.

The Lefroy Glacier, arising in the area between Mount Lefroy, the Mitre, and Mount Aberdeen, is a confluent of the Victoria Glacier.

Abbot Pass

From the Victoria Glacier there is a fine climb over Abbot Pass, between Mount Lefroy and Victoria, past tiny Lake Oesa, to Cataract Brook and Lake O'Hara. This should not, however, be attempted by the novice nor unless accompanied by skilled guides. (See page 48).

Pipestone Trip

The Pipestone River drains into the Bow River, near Lake Louise Station, from the north, rising in the height of land near the northern boundary of the park. An excellent trail follows up the river to the vicinity of an alpine lake full of fighting trout that can be caught on the fly. The camping ground is nineteen miles from the station, so that guides, ponies and outfit are recommended for those who wish to fish. The season opens July 1st. The Lake is an alpine meadow amid high glacial surroundings of spectacular grandeur and beauty. On the return journey a magnificent view is to be obtained of the group of peaks which surround Lake Louise itself.

The trail can be continued over the Pipestone Pass (the highest in the Park), and down either the Siffleur or the Clearwater River (the Park's northern boundary) to the main Saskatchewan.

Chateau to Pipestone Pass, 28 miles.

Hector Lake and Bow Lake

This fine excursion north-west of Lake Louise is along the Bow River to its source in Bow Lake. Hector Lake, reached by a slight divergence from the main trail, is a beautiful one about four square miles in extent, with waters of an exquisite blue. Draining into it are two small lakes fed from the Balfour Glacier which overshadows them—Turquoise (very aptly named) and Margaret.

A short distance from the height of land, at an altitude of about one quarter-mile above Lake Louise station, is Bow Lake, the source of the Bow River, which flows down through the Park to become the main source of the South Saskatchewan River, which in turn forms part of the enormous Saskatchewan water-system draining eventually into Hudson

Bay. The Lake, about three miles long, is bounded at its head by the Bow Glacier, descending through a steep and narrow canyon.

The journey can be continued by the Bow Glacier to Christmas Peak, or St. Nicholas, thence across the Balfour Glacier to the upper Yoho Valley. This trip should not, however, be undertaken by anyone unacquainted with Glacier-climbing conditions, or without a guide.

Chateau to Bow Lakes, 25 miles.

Ptarmigan Lake and Hector

From Lake Louise station to Ptarmigan Lake and back is a pleasant day's pony ride up Corral Creek (running from the northeast into the Bow). The lake lies at the foot of the Slate Mountains.

Another fine ride is to Hector—from the Chateau along the mountain side to the Great Divide, thence to Hector.

Chateau to Ptarmigan Lake, 9 miles.
Chateau to Hector, 10 miles.

Climbing at Lake Louise

Two good climbs which may be made without a guide are to the tops of Mount Fairview and of Saddle Mountain. A good trail leads to the summit of each. For the experienced climber there are at least a score of peaks in the immediate neighbourhood of first class importance and interest. Victoria, Lefroy, Hungabee, Temple, Pinnacle and Deltaform are all fine climbs, representing practically every form of ice, rock and snow work, and there are many others to choose from.

Swiss guides are attached to the Chateau—rates $7.00 per day.

Boating. Boats can be hired at the boat house.

Lake Louise to Field

Six miles west of Lake Louise is the "Great Divide" (altitude 5,332 feet), which is at once the highest elevation of the railway, the boundary between Alberta and British Columbia, and the very backbone of the continent. It is marked by a rustic arch spanning a stream, which, by one of those freaks by which nature diverts herself, divides into two little brooks that have vastly different fates. The waters that flow to the east eventually reach Hudson Bay and the Atlantic Ocean; the rivulet which runs to the west adds its mite to the volume of the Pacific. Here stands the granite shaft erected to the memory of Sir James Hector, the discoverer of the Kicking Horse Pass.* The provincial boundary marks also the boundary be-

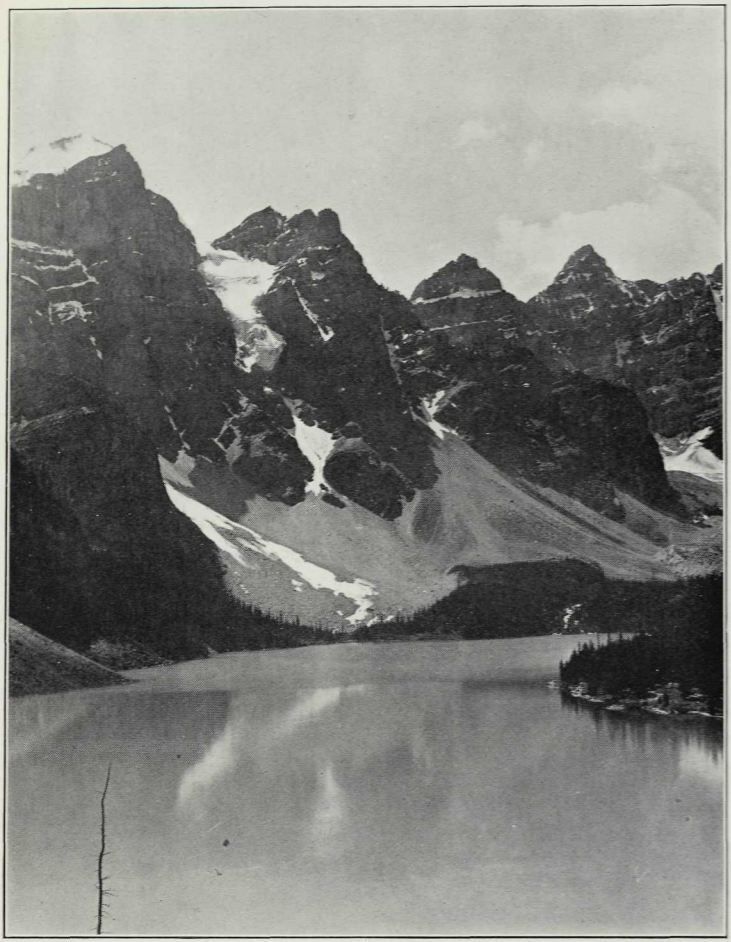
*The name "Kicking Horse Pass" is sometimes ascribed to the supposed shape of a great black horse which the imaginative eye can pick out on the mountain-side; but actually it is due to an actual "kicking horse" episode of the Palliser expedition of 1857-60.

tween Rocky Mountains Park and Yoho Park. Hector, a short distance further, is the station for Lake Wapta Camp. (See page 000).

From the Great Divide the railway begins to descend. Between here and Field, a distance of fourteen miles, it descends in fact nearly a quarter of a mile through the Kicking Horse Pass. This it does through the famous "Spiral Tunnels", which reduced a difficult and occasionally dangerous grade of 4.5 per cent to 2.2 per cent. The construction of these tunnels has deprived the traveller of some of the former thrills, but has left him most of the scenery. The old road bed still exists, and forms a carriage drive into Field.

From the east the track enters the first tunnel under Cathedral Mountain, 3,225 feet in length, and after turning an almost complete circle and passing under itself emerges into daylight 54 feet lower. The track then turns easterly and crossing the river enters the second tunnel, 2,922 feet long, under Mount Ogden. Again turning a circle and passing under itself, it comes out 50 feet lower and continues westward to Field. The tunnels amaze and perplex the traveller, the railway doubling back upon itself twice and forming a rough figure eight in shape. Possibly the most advantageous way to see them is when travelling in an eastbound direction; then, if the train is run in two sections, passengers are able to see the other section at either a higher or lower level, making its way up the big grade.

Looking northward from the daylight portion of this section, between the two tunnels, a brief but tantalizing glimpse is caught of the long defile of the Yoho Valley.



MORAINE LAKE, NEAR LAKE LOUISE.

PRINCIPAL ALTITUDES AROUND LAKE LOUISE.

(in feet)

Abbot Pass	9,588
Aberdeen, Mount	10,340
Agnes, Lake	6,875
Annette, Lake	6,500
Babel, Tower of	7,580
Beehive, Big	7,440
Beehive, Little	7,110
Bident, Mount	10,109
Bow Lake	6,420
Cataract Peak	9,444
Devil's Thumb	8,066
Eiffel Peak	10,091
Fairview, Mount	9,001
Great Divide, The	5,332
Haddo Peak	10,073
Hector Lake	5,694
Hector, Mount	11,125
Lefroy, Mount	11,220
Louise, Lake	5,670
Louise, Lake, Station	5,044
Mirror Lake	6,650
Mitre, The	9,470
Moraine Lake	6,109
Niblock, Mount	9,754
Pinnacle Mountain	10,062
Pipestone Pass	8,364
Popes Peak	10,360
Ptarmigan Lake	7,561
Ptarmigan Peak	10,050
Quadra, Mount	10,410
Richardson, Mount	10,115
Saddle Mountain	7,783
St. Piran, Mount	8,681
St. Nicholas	9,606
Sentinel Pass	8,556
Sheol, Mount	9,108
Temple, Mount	11,626
Ten Peaks, The	
No. 1—Mount Fay	10,612
No. 2—Mount Little	10,293
No. 3—	10,088
No. 4—	10,028
No. 5	10,018
No. 6—	10,320
No. 7—Mount Tuzo	10,648
No. 8—Mount Deltaform	11,225
No. 9—Neptuak	10,607
No. 10—Wenkchemna	10,401
Turquoise Lake	6,577
Victoria, Mount	11,355
Wenkchemna Pass	8,521
Whyte, Mount	9,776
Wiwaxy Peaks	8,863
Yukness, Mount	9,342

YOHO PARK

Yoho Park immediately adjoins Rocky Mountains Park on the west, and lies, broadly speaking, on the descending slopes of the Rockies, with the President and Van Horne ranges as its western boundary. In area it comprises 476 square miles; in shape it is about twice as long as it is wide.

It is a region of charm and winsome beauty, of giant mountains and deep forests, of rushing rivers and sapphire-like lakes. Its principal river is the Kicking Horse, with the Ottertail, the Amiskwi, and the Yoho as main tributaries; its chief lakes are Emerald (the largest), Wapta, McArthur, O'Hara, and Sherbrooke. The highest peaks are Goodsir, Hungabee, Huber and Biddle.

This park can be viewed more advantageously from the train by the hurried traveller who must run as he reads than perhaps any other, for the railway runs at the bottom of the deep gully down which rushes the Kicking Horse. The mountains are so close that they are stupendous. Mount Stephen, for example, towers nearly a mile and a quarter above Field.

Accommodation

The little town of Field is a railway divisional point; but a few years ago the comfortable Mount Stephen House, whose twin lawns slope down to the platform, and which had until then been operated as a hotel, was converted into a railway Y.M.C.A.

Accommodation can still be secured there, but it is not a recognized tourist centre, and the chief accommodation is either at Emerald Lake Chalet or Lake Wapta Camp—the latter with two sub-camps, at Lake O'Hara and Takakkaw Falls.

Emerald Lake

The drive from Field to Emerald Lake is worth taking for its own sake alone. Leaving the station, an excellent carriage road crosses the Kicking Horse River, and, first following the river and then turning sharply north round Mount Burgess, leads through an almost primeval and silent forest. For part of the way the road is called "Snowpeak Avenue"; on either side tall pine trees stand as straight as soldiers on parade, at either end is a striking snowcapped peak—Emerald Peak going out, Mount Goodsir

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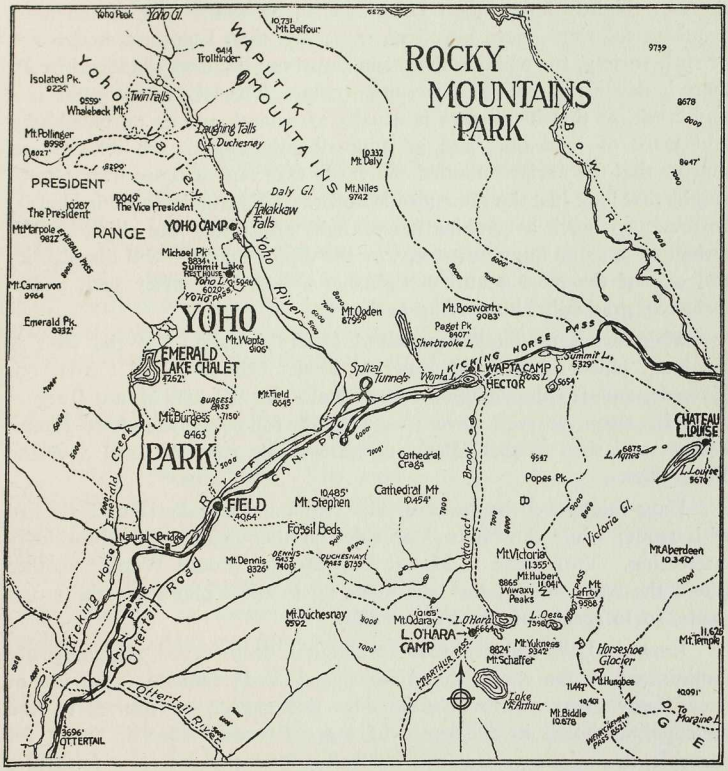
For altitudes in Yoho Park, see end of section.



YOHO PARK—CENTRAL REGION.

coming back. A detour of about two miles, either coming or going, may be made to the curious geological freak known as the "Natural Bridge".

Emerald Lake lies deep in a forest that almost completely clothes its shores. Slightly larger than Lake Louise, its waters are of the most exquisite coloring—more beautiful, some say, than Louise, although not of such variety, for while in them one can count limitless shades of green there is never a suspicion of any other color. The lake's only outlet is a tiny creek, so that its surface is usually as smooth and as unruffled as a taut piece of jade silk; and in it the looming peaks are reflected so sharply that the curious-minded can easily take one of those trick photographs that look just the same upside down. This wonderful reflection is, however, so much a combination of light effect that the slightest disturbance—a stone flung purposely, or the dip of an oar—will dissolve it; and one of the most beautiful sights is to watch it, after such a disturbance, gradually shimmering back.

Magnificent mountains surround Emerald Lake. On the west is the long, powerful bulk of Emerald Peak; behind it are Carnarvon, Marpole, and (to the right) the President. To the east Mount Burgess rears its steep, scarred tower; next to it, following round, is Mount Wapta, and then Michael Peak, up whose side runs the trail over the Yoho Pass.

Days might well be spent in this region. The lake is well stocked with trout; while the "hikes" or rides in the vicinity are absorbingly interesting. Trails lead to Mount Burgess and Mount Wapta: another round the west side of the lake leads up to the Yoho Pass, the crossroads, so to speak, of the Yoho Valley.

Emerald Lake Chalet, broad-verandah'd, deep-carved, and unusually reminiscent of the chalet that Switzerland made famous, is an inn of exceedingly great comfort. One does not expect, of course, to find metropolitan hotels in the depths of a great forest. Electric lights, for example, are missing. But this charming little chalet has so faithful a following that lately extensions have had to be made, so that its total accommodation is now about seventy.

Field to Emerald Lake, 7 miles.

Ottertail Road Another delightful drive from Field is to Ottertail, along a good carriage road that follows the old grade to the junction of the Ottertail and Kicking Horse Rivers.

Beyond this point there is a trail, roughly paralleling the south bank of the Kicking Horse due south, until the railway line and the river bend away westward. Thence the trail follows the Beaverfoot River, and round up its tributary the Ice River. This is a beautiful but little known section of the Park, guarded by four fine peaks, Chancellor, Vaux, Hanbury, and (to the east) the twin-headed giant Mount Goodsir.

From Ottertail the Ottertail River can be followed up to Lake O'Hara.

Field to Ottertail River, 6 miles.
Ottertail to head of Ice River, 21 miles.

The Fossil Beds

Mount Stephen, named after the first President of the Canadian Pacific Railway, is one of the most climbed peaks of the Rockies. The pony trail from Field to Dennis Pass brings one, at a distance of about three miles, to the great fossil beds, estimated variously to be from 150 to 2,000 feet in thickness, and an enormous repository of these paleozoic vestiges of a vanished ocean that existed prior to the Glacial Age.

Lake Wapta Camp

Lake Wapta Camp, a picturesque bungalow camp of log cabins and a club house, is situated on the farther side of the lake, on the very beautiful sheet of water named Wapta Lake. The station (whence the camp is reached by motor-boat) is Hector, eight miles from Lake Louise, twelve miles from Field, and just inside the boundaries of British Columbia and the Yoho Park.

From this camp either Lake O'Hara or the Yoho Valley are very easily reached. Ten minutes walk to the west the Kicking Horse Canyon begins, down which one can either walk or ride to Field.

The Yoho Valley

The famous Yoho Valley lies between the Waputik range and the President range, running in from the Kicking Horse Valley for about fourteen miles, until it is blocked by the Yoho and Wapta Glaciers. Seen from the Kicking Horse Pass it seems only a narrow cleft between deeply wooded peaks; yet it is a mile deep, walled in by almost perpendicular mountains hung with rich ancient forests.

The Yoho Valley divides—not naturally, but for convenience of excursions—into two parts. The first ends at Takakkaw Falls, the second (sometimes called the Upper Yoho Valley) between that point and the Yoho Glacier. From Field the Takakkaw Falls can be reached by a good carriage road; beyond that one has to be content with trails.

Such trails, however, are good ones, well-travelled, and well marked, and can be followed even by those travelling without guides. Energetic walkers can, and frequently do, traverse them on foot; failing this there is that never-failing mountain jitney, the pony.

From the Takakkaw Falls the alternative return routes to Field by trail are either the Burgess Pass, or the Yoho Pass via Emerald Lake.

To Takakkaw Falls

This is one of the finest long drives in the whole Rockies. Leaving Field, the road finds a narrow footing between the waters of the Kicking Horse and the base of Mount Burgess. Directly ahead are Mount Stephen and Cathedral Mountain, towering into the sky. The forest is dense except on the right hand, where the swirling river and the frowning further sides of the canyon can be seen through the trees. Presently, swinging round Mount Field, the road turns sharply at the junction of the Yoho river with the Kicking Horse, which it joins in a beautiful cascade.

From Lake Wapta Camp the route is down the canyon from Hector, following the right bank of the Kicking Horse to this point.

Entering the Yoho Valley, the road zigzags up the face of the cliffs; a few miles further, a sharp turn suddenly reveals the Takakkaw Falls. Born in the great snowfield between Mount Niles and Mount Balfour, 2,500 feet above, this torrent twists down a narrow chasm until it gains the edge of the precipice, where it takes an initial leap of 150 feet: then, gathering itself together, it descends in a lacy ribbon, in a stupendous leap of about 1000 feet. Then, striking the side of the sheer cliff, it tumbles in a final cascade of some 500 feet to the river, foaming into high clouds from the concussion.*

In the beautiful mountain meadow that faces Takakkaw Falls is the Yoho Camp—a new bungalow cabin camp, accommodating about 25, that replaces a tent camp formerly situated here, where the night can be most delightfully spent.

Field to Takakkaw Falls, 11 miles.
Lake Wapta Camp to Takakkaw Falls, 13 miles.

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*Takakkaw Falls is about ten times as high as Niagara. Its Indian name means "It is wonderful!"—but so many of these Indian names can be translated to suit the occasion that it may mean something else. The present writer recently had before him an Indian place-name which, following the traditional translation, he said meant "The-place-where-the-old-man-caught-the-big-fish"—only to find that another authority asseverated that it meant "Pictures-drawn-on-rocks".

The Upper Yoho Valley From Takakkaw Falls a trail leads to the upper valley, still following the Yoho River, past Lake Duchesnay and the Laughing Falls to the Twin Falls. The latter, divided by a high rock on the edge of the precipice, are of even greater interest than the Takakkaw Falls, owing to the vast columns of steam-like spray caused by the concussion of their two columns of water with the rock floor nearly 500 feet beneath.

From the Twin Falls the trip may be continued to the Yoho Glacier, beyond which is the great Waputik Icefield. This is an ice-world full of interest to the scientist or climber, with half a dozen great glaciers and thirty square miles of snowfields in the immediate neighborhood.

The Yoho Glacier, of a very spectacular appearance, is readily accessible. It presents a magnificent cascade of broken ice falling into the valley a long way below timber line, and the forest is seen thickly clothing the heights above it. The ice, however, has been in retreat for several years, and the beautiful ice-arch formerly formed at its fore-foot is no longer seen. A certain amount of caution is necessary in approaching the glacier on account of the frequent falling of masses of ice.

A side trip can be made from Twin Falls over Whaleback Mountain back to the upper trail. Another side trip is from the upper trail following up the Little Yoho river to one of the former camps of the Alpine Club of Canada.

The return from Twin Falls may be made by this upper trail, which goes part way up Yoho Peak, and a wonderful panorama is afforded of the entire Yoho Valley, the Cathedral Range across the Kicking Horse Valley, and the Wapta and Daly Glaciers. The upper trail, leading along the left of Michael Peak, overlooks Takakkaw Falls.

Takakkaw Falls to Emerald Lake, 7 miles.
Twin Falls to Yoho Glacier, 4 miles.
Twin Falls to Whaleback and back, 2½ miles.
Little Yoho trip, from upper trail—return, 14 mies.
Twin Falls to Yoho Pass, 9 miles.

Burgess Pass At Yoho Lake, a small, beautifully-colored lake perched at an altitude of over a mile above sea level, this upper trail divides. A short but fairly sharp descent brings one down to the Takakkaw Falls; another branch leads to Field over the Burgess Pass; and a third to Emerald Lake.

The route over Burgess Pass affords a tremendous breath-taking panorama—a sea of peaks around, a deep abyss below. Continuing almost due south, the trail skirts on the left hand side the great mass of

Mount Wapta; next it passes between Mount Field (on the left) and Mount Burgess (on the right). Then it drops down through wooded slopes to Field. This trip over Burgess Pass is one of the most magnificent of the easily accessible pony-rides in the mountains.

The trail from Yoho Lake to Emerald Lake is a beautiful but rather steep one through the Yoho Pass around Michael Peak, crossing several small streams and circling the western shore of Emerald Lake.

Yoho Pass to Emerald Lake, 4 miles.
Yoho Pass to Field over Burgess Pass, 6 miles.
Takakkaw Falls to Twin Falls, 7 miles.

Lake O'Hara

This beautiful little lake with the Irish name lies almost due south of Hector, in an open alpine meadow that was once the cup of an old cliff-glacier. Its waters are of a remarkably intense blue color; around it white and pink heather carpet the ground, and spruce trees cast their long shadows. Surrounding it as a superb background are the giants of the main range—Victoria, Huber, Hungabee, Yukness, Biddle, Schaeffer, Odaray, and Cathedral.

With the establishment of Lake Wapta Camp the easiest method of approach is by the pony trail from Hector, along Cataract Brook. The ride from Hector to O'Hara, and return, is a pleasant and comfortable day's outing; but for those not in such hurry the small permanent camp now established at O'Hara makes a convenient night's resting place.

There are, however, two alternative routes from Field either of which could be used for the return journey. The shorter begins right behind Field, over Dennis Pass, between Mount Stephen and Mount Dennis, and then Duchnesay Pass, whence descent is made to a beautiful valley under the shadow of the precipitous crags of Mount Odaray. The other and longer route is via Ottertail, leaving the carriage road where it crosses the Ottertail River, thence following the latter in a south-easterly direction and turning north up McArthur Creek, and finally crossing McArthur Pass.

Lake O'Hara can also be reached from Lake Louise over Victoria Glacier and Abbot Pass. (See page 38). This, however, is not a trip that should be attempted by novices, and never without a guide.

The series of glacier-cut hanging valleys rising from Lake O'Hara to the foot of the Abbot Pass is of great interest. Tiny lakelets lie in the hollows, and huge rock stairways lead from shelf to shelf. At the foot of the pass is Lake Oesa (ice), ice-bound for eleven months of the year, but in August open water dotted with baby icebergs.

Lake McArthur, distant an hour from O'Hara just beyond McArthur Pass, between Mount Biddle and Mount Schaeffer, is a splendid

EMERALD LAKE—YOHO PARK.

From a painting by
Oliver Dennett Grover.

specimen of a glacier lake. High above the timber line, in color bright blue, its loneliness presents a marked contrast to the enchanting scenery of O'Hara. It is almost entirely surrounded by bare rocky walls, down which a glacier creeps to bury its nose in the waters of the lake.

Hector to Lake O'Hara, 7 miles.
Field to Lake O'Hara, via Dennis Pass, 12 miles.
Ottertail to Lake O'Hara, via McArthur Pass, 16 miles.
Lake O'Hara to Lake McArthur, 2 miles.

Sherbrooke Lake This charming lake, with Ross Lake, is one of the shortest excursions from Lake Wapta Camp, following the Kicking Horse Canyon and then turning north.

Lake Wapta Camp to Sherbrooke Lake, 4 miles.

Kicking Horse Route This route is along the carriage road to Emerald Lake as far as the detour to the Natural Bridge, and then follows the north shore of the river for about a mile. Crossing the river, it joins the Ottertail road. Another trail leaves the Emerald Lake road higher up, and parallels the Kicking Horse River at some distance, crossing the Kicking Horse below Ottertail and then joining the Ottertail-Leanchoil trail. A branch runs some way up the Otterhead Creek. Still further up the Emerald Lake road another trail starts in a north-westerly direction towards the Amiskwi River, a little-visited section of the Park.

Field to Ottertail, via Emerald Lake road, 12 miles
Field to Amiskwi river, 8 miles.

KOOTENAY PARK

Kootenay Park is the youngest of the Canadian National Parks, having been established in 1920. With an area of 587 square miles, it tucks in between the southern portions of Rocky Mountains and Yoho Parks, and comprises the Vermilion, Mitchell and Brisco Ranges. The Kootenay River flows through its southern part, with a large tributary in the Vermilion. At the southwest end it almost touches the eastern back of the Columbia River a little above Lake Windermere.

The scenery of the Park is somewhat similar to that of Yoho, though it becomes less subdued, and the valleys grow wilder as one goes southwards. The nearest railway connection is at Lake Windermere, but the Banff-Windermere trans-montane motor-road that has just been completed from Banff through Vermilion Pass traverses the centre of this Park.

Brisco Range	8,000 feet
Vermilion Range	9,855 feet
Vermilion Pass	5,264 feet
Windermere, Lake ..	2,607 feet

PRINCIPAL ALTITUDES IN YOHO PARK.

(in feet)

Balfour, Mount	10,731	Leanchoil	3,682
Biddle, Mount	10,876	Marpole, Mount	9,822
Burgess, Mount	8,463	McArthur, Lake	7,359
Burgess Pass	7,150	McArthur Pass	7,300
Carnarvon, Mount	9,964	Michael Peak	8,834
Cathedral Mountain	10,454	Niles, Mount	9,742
Chancellor Peak	10,731	Odaray, Mount	10,165
Collie, Mount	10,315	Oesa, Lake	7,398
Daly, Mount	10,332	Ogden, Mount	8,795
Dennis, Mount	8,326	O'Hara, Lake	6,664
Dennis Pass	7,408	Olive, Mount	10,260
Duchesnay, Mount	9,592	Ottertail	3,702
Duchesnay Pass	8,737	Owen, Mount	10,118
Emerald Lake	4,262	Popes Peak	10,360
Emerald Peak	8,332	President, The	10,287
Field, Mount	8,645	Ross Lake	5,654
Field Station	4,072	Schaeffer, Mount	8,824
Fossil Beds, Field	7,400	Sherbrooke, Lake	5,908
Goodsir, Mount, South Tower	11,676	Stephen, Mount	10,485
Goodsir, Mount, North Tower	11,555	Vaux, Mount	10,881
Gordon, Mount	10,336	Vice President, The	10,049
Habel, Mount	10,361	Wapta, Lake	5,190
Hanbury Peak	10,267	Wapta, Mount	9,106
Hector Station	5,213	Whaleback Mountain	8,559
Huber, Mount	11,041	Yoho Pass	6,020
Hungabee, Mount	11,447	Yoho Peak	9,046
Hunter, Mount	8,652	Yoho Valley	4,500-5-000
Kicking Horse Pass	5,339		

Field to Glacier Resuming the railway journey from Field, and following the Kicking Horse River for a considerable distance, the railway begins to descend steadily into the great trench between the Rockies proper and the Selkirk Range that is occupied by the Columbia River.

The narrow valley of the Kicking Horse divides the Ottertail range on the left from the Van Horne range on the right. A mile west of Emerald station can be seen Mount Goodsir, the highest peak in Yoho Park. Also on the left are Mounts Vaux and Chancellor. At the right Mount Hunter pushes its huge mass forward, like a wedge, between the two ranges. The river turns abruptly against its base, and plunges into the lower Kicking Horse Canyon. Just before reaching Palliser the Yoho Park is left.

The canyon deepens rapidly until the mountain sides become vertical. The roar of the river as it rushes from side to side of the narrow gorge, the thunder of the train as it follows the river—pandemonium increased a thousandfold by the reverberations of the canyon walls—and the towering cliffs almost shutting out the sun, create an indescribable sensation. At Golden the line emerges into daylight. The railway has descended 1,500 feet since it left Field.

Golden is a lumbering and mining town with an interesting history rather on the "tough" side. Part of its claim upon the traveller's attention is that it is the home of the picturesque Swiss guides who can make mountain climbing so comparatively safe and easy for the novice, and who are to be met in the summer at Lake Louise or Glacier. Their model village of "Edelweiss", patterned after the characteristic architecture of the Swiss chalet, climbs the hill about a mile west of the station.

But the greater claim is that here the noisy, turbulent Kicking Horse River is absorbed into the calm bosom of the mighty Columbia. This, the most important waterway flowing into the western side of the North Pacific, rises in a group of lakes, one of which is Lake Windermere, 70 miles south, and at first flows north-westerly. At Golden it joins the railway, which it parallels for nearly thirty miles, until at Beavermouth it leaves the line at the lower slopes of the Selkirks, turns north, makes its famous "Big Bend", turns south, re-appears at Revelstoke, enters the

Arrow Lakes, and shortly afterwards becomes the proud American river of its greatest fame.

Lake Windermere is one of the newest tourist centres of the mountains. Its charm has always been known to the "old timers", who have pioneered in this lovely valley for so long that its history reaches back to the explorer David Thompson, who in 1807 established a Hudson's Bay post at "Kootenai House". A memorial to Thompson, in the form of a facsimile of this post, has now been erected. But only since the construction of a branch line from Golden a few years back, superseding the old steamer that paddled back and forth on a very sketchy schedule, and more especially since the establishment in 1920 of an attractive bungalow summer camp, has the outside world really sat up and taken notice of it.

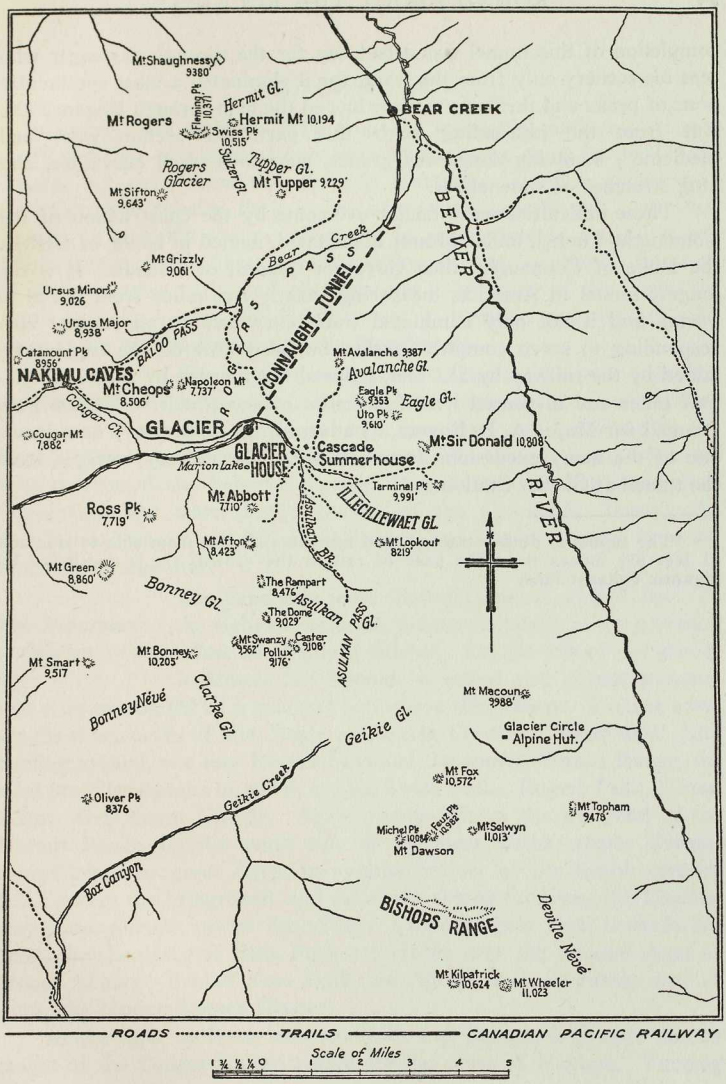
The lake is one of the loveliest lakes of British Columbia, and as its glacial waters are tempered by springs they are warmer than those of the higher mountains. The scenery is magnificent—on one side the slope of the Rockies, on the other that of the Selkirks. Lake Windermere is the station for four neighboring villages, Athalmer, Windermere, Wilmer, and Invermere; the surrounding country, hitherto a rich lumbering and mining one, is gradually, with the influx of new settlers, developing into a prosperous mixed farming one. Many excursions can be made by automobile, horse-back, or boat, such as to Sinclair and Fairmount Hot Springs, Toby Creek, the Lake of the Hanging Glaciers (the latter a wonderful spectacle), etc. There is also at Windermere a fair 9-hole golf course.

The new motor road from Banff to Windermere (see page 89) joins the government road at Sinclair. The railway line continues southward to Fort Steele, Bull River and Cranbrook, where it joins the Crow's Nest Pass line, described on another page.

The Selkirks

The railway main line west of Golden descends the open valley of the Columbia, with the Purcell Range, a spur of the Selkirks, to the south and rapidly nearing it. At Beavermouth the line swings away from the river and begins the long climb to Glacier, a climb of nearly a quarter mile in a distance of twenty-two miles. Very soon one sees ahead, up the Beaver Valley, a long line of the higher peaks of the Selkirks, en echelon, culminating in the exceedingly lofty pinnacle of Mount Sir Donald.

Just beyond Rogers, Glacier Park is entered, and very shortly the train plunges into the five-mile blackness of Connaught Tunnel. The



GLACIER PARK.

completion of this tunnel was a bad day for the through passenger who sees his scenery only from the train, for it eliminated a most spectacular hour of peaks and thrills as the line looped the loop through Rogers Pass. But from the railroading angle this particular section was "bad medicine", involving dangerous grades, enormous track curvature, and long stretches of snow-sheds.

These difficulties were finally overcome by the construction of the Connaught Tunnel, under Mount Macdonald, named in honor of H.R.H. the Duke of Connaught, then Governor-General of Canada. It is the longest tunnel in America, measuring exactly five miles from portal to portal, and it not only eliminated track curvature to an amount corresponding to seven complete circles, but also lowered the summit attained by the railway by 552 feet, reduced the journey by four and one-half miles and dispensed with four miles of snowsheds.* Rogers Pass (named for Major A. B. Rogers, its adventurous discoverer) now forms one of the many excursions from Glacier. The railway emerges from the tunnel at Glacier Station.

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*The tunnel is double-tracked, and measures 29 feet from side to side and 21 feet 6½ inches from the base of rail to the crown. It is ventilated by gigantic exhaust fans.

GLACIER PARK

Glacier Park suffers a little from the inevitable confusion between itself and that of a much larger park of the same name in the United States; but apart from that there is practically no other comparison. The Canadian Glacier Park is one of austere majesty and high loneliness. In size 468 square miles, and in shape roughly square, it embraces some of the finest mountaineering country of North America. With its massive peaks and giant glaciers it has none of the "frills" of Banff or Lake Louise, but rather an air of isolation and mystery. Its chief rivers are the Beaver and the Illecillewaet.

Accommodation

The only stopping place is Glacier House, a homelike, hospitable hotel that, first constructed in the earliest days of the railway, has been very considerably enlarged, so that it has now some 90 rooms. In the old days, when the railway crossed the Selkirks through Rogers Pass, the hotel adjoined the station; but since the completion of the Connaught Tunnel, the station has been moved 1½ miles distant, and is now reached by a delightful carriage drive.

The Panorama of Glacier

The panorama from Glacier House is magnificent. To the right of the hotel, facing the lawns, is the gleaming white Illecillewaet Glacier. On the left of the glacier is Mount Sir Donald—a naked and abrupt pyramid that rises to a height of a mile and half above the railway. Farther away are the sharp peaks of Uto, Eagle, Avalanche Crest and Macdonald. Still circling around, one sees Rogers Pass and the snowy Hermit Range, the most prominent peaks of which are the Swiss Peaks, Rogers Peak, Mount Sifton, and Mount Grizzly. Again on the left, at the west end of the Hermit Range, on the south side of the Bear Creek, comes Cheops, named after the great Egyptian pyramid-builder of the fourth century B.C.; and in the foreground, and far down among the trees, the Illecillewaet river glistens across the valley. Circling again back towards the hotel, the shoulders of Ross Peak are visible over the wooded slope of Mount Abbott. Behind Ross Peak and Abbott is an enormous wall of snow, the Mount Bonney Glacier.

To the right of Ross, between Ross and Cheops, a glimpse can be caught of the Cougar Valley, where are the caves of Nakimu. Turning

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For altitudes in Glacier Park, see end of section.

again to face the Illecillewaet Glacier a V-shaped valley is seen on the right—the valley of the Asulkan brook. The peaks, from right to left, are: Afton, the sharp apex; the Rampart, an oblong wall; the Dome, a rounded rock, and Castor and Pollux, two sharp spires farthest south. To the left again is the forested dome of Glacier Crest, the western boundary of the glacier.

The Illecillewaet Glacier

The Illecillewaet Glacier (once called, rather confusedly, the "Great Glacier") is without doubt the chief centre of interest. It can be viewed from the hotel balcony, or reached in an hour and a half by an easy walk or ride along an excellent trail.

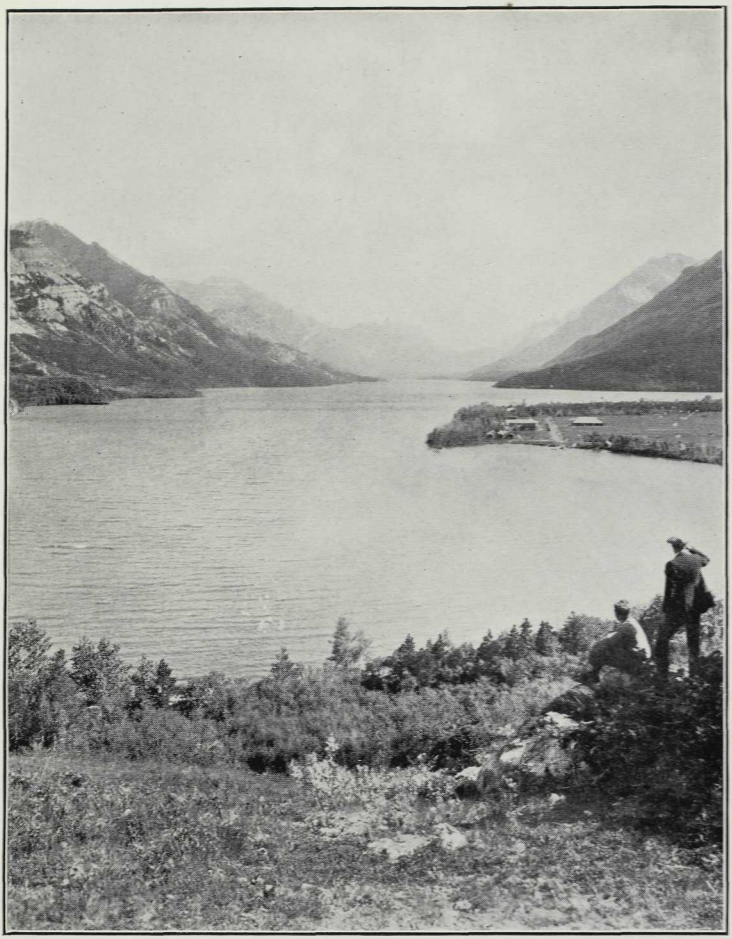
This great plateau of gleaming ice, framed in a dark forest of giant cedar, hemlock and spruce trees, falls from the Illecillewaet snowfield, which contains an area of about 10 square miles and lies along the eastern escarpment of the Selkirks. From the crest of the snowfield to the "nose" of the glacier there is a drop of 3600 feet. The glacier is scarred by immense crevasses of great depth.

One remarkable feature of the glacier is the large number of immense "terminal" moraines, consisting of great blocks of rock weighing hundreds of tons, across the valley below the glacier. These moraines were deposited many hundreds — possibly thousands — of years ago by the ice, which has since receded a long way from them, and are now covered with forest growth.

Observations and measurements of the ice-fall were carried on during a series of years by Messrs. Vaux and Miss Vaux (Mrs. Charles Walcott), the results of which show that this glacier, like most of those in other parts of the world, is in a state of retreat. From 1890 to 1898 it had retreated 452 feet up the valley, or an average of fifty-six feet per year. During the succeeding five years the average recession was about thirty-five feet; then a marked change occurred, for next year the recession was reduced to about five feet and in 1905 to two and a half feet. Since then the recession has varied from year to year, that for the year ending August, 1918 having again increased to about seventy-four feet.*

Glaciers flow like rivers, or like any plastic body under the pull of gravity; and, like rivers, they flow fastest in the middle and slowest at the sides. Like rivers again, should their course be bent, the tendency

*"The future of this glacier tongue", says Mrs. Walcott, "will be observed with much interest. Predictions as to its future action seem quite impossible, though apparently the recession is increasing year by year". And this is in spite of the fact that the average snowfall here is 36 feet per annum!



WHERE TWO COUNTRIES MEET—WATERTON LAKES PARK.

is for the line of swiftest motion to shift over to the corner around which they turn, and for an almost motionless backwater to be formed in the opposite shore. These things are proved by the simple method of "planting" a straight row of stakes or metal plates on the surface of the glacier, and by observing their changed positions from time to time. From 1898 to 1912 the average maximum surface flow of the ice forefoot of the Illecillewaet Glacier appears to have been about five inches per day.

Markings with red paint on the adjacent walls show the rate at which this glacier is receding. Some years ago the glacier presented a fine ice cave at its forefoot, but owing to the continued shrinkage this is now a thing of the past.

The return trip to the hotel can be made along a trail on the east bank of the river.

Mount Sir Donald

This stately monolith (named after the great national figure extension trail from the glacier trail. Towering above the who later became Lord Strathcona) can be reached by an icefall, it furnishes one of the most attractive climbs of the region; from its summit is seen a world of snowy peaks, widespread icefields, tumbling glaciers and winding silver streams.

Mount Abbott

Another very interesting trip is to the "overlook" on Mount Abbott. Leaving the rear of the hotel, the trail climbs gradually up the slopes of the mountain to Marion Lake, a sombre little mountain tarn that yields some extraordinary reflections. Here the trail branches. That to the right goes up to the observation point, about 100 yards away, from which a splendid panorama of Rogers Pass is to be had; that to the left to the Abbott Alp, a beautiful grassy upland from which one can look down upon the enormous glacier.

Hotel to Marion Lake, 1 mile; Marion Lake to Mount Abbott, 1 mile

Asulkan Valley and Glacier

Tributary to the valley of the Illecillewaet glacier is the Asulkan Valley. This is, says Mr. A. O. Wheeler, "the most beautiful specimen of a mountain valley made by a rushing glacier torrent that can be found. On either side are towering mountain slopes and precipices, exalted rock ledges from which spectacular water falls leap from great heights, overhanging snow crests which often send roaring avalanches sweeping all before them into the valley below and far up the opposite side". (Asulkan—Indian for "wild goat").

The trail thither branches off the main glacier trail, and, crossing the Asulkan brook, climbs up the valley through a deep forest to the forefoot of the Asulkan Glacier. This glacier, although it moves less rapidly than the Illecillewaet, is also retreating—even, in recent years, with comparative rapidity. Its upper portions are buried in snow, but are easily reached under the direction of a guide. Its chief source, the Asulkan snowfield, leads over the Asulkan Pass to the Fish Creek Valley.

A path branches from the Asulkan trail, a short distance from the first bridge, and climbs zigzag-fashion to Glacier Crest, commanding the Illecillewaet Glacier.

Hotel to Asulkan Glacier, 4 miles.

Cascade Summerhouse

An easy and delightful morning's walk is to the Cascade Summerhouse, on the lower slopes of Mount Avalanche. The trail starts from the Swiss guides' chalet. Near the summerhouse the cascade tumbles noisily in a series of leaps a distance of 1,200 feet. One may go still higher to Avalanche Crest, whence magnificent views of Mount Bonney Ridge and glacier may be obtained.

Hotel to Summer House, 1 mile.

Cougar Valley

To Cougar Valley is a delightful excursion by carriage road; or, combining with it a visit to the Nakimu Caves and Roger's Pass, an equally delightful day's trip by pony, or even on foot. The route is westerly from Glacier House, descending first to the station, crossing the track, and following the road that winds around the base of Mount Cheops.

Turning round to follow Cougar Creek, the beautiful Cougar Valley is entered. This valley, presenting an ever-changing panorama of snow-clad peaks, rock precipices, dazzling snow-fields, and fine forests, is of the type known as a "hanging valley", lined with small shining glaciers. Its length is about three miles, and it is enclosed by the rocky sides of Mount Cougar, Mount Bagheera, Catamount Peak, Ursus Major, and Mount Cheops. Alpine flora is abundant and varied; mountain goat may often be seen, and the marmot—that startling whistler—very plentiful.

The road ceases as it turns from the Creek up towards Baloo Pass, and the remainder of the journey to the Caves must be made by trail.

The Nakimu Caves These curious caves, discovered by C. H. Deutschman in 1904, are situated on the lower slopes of Mount Cheops and Ursus Major, in the Cougar Valley. A series of subterranean chambers formed partly by seismic disturbance, and partly by water, and called the "Witches Ballroom", the "Auditorium", the "White Grotto", the "Judgment Hall", the "Bridal Chamber", and so on, they are characterized by beautiful interior marble markings, and have been explored for almost a mile.

A descent can be made into the caves at two or three points, and the whole system, so far as it is known, explored in safety—though preferably under the guidance of one who has been there before. There are three groups of caves, the Gopher Bridge, the Mill Bridge, and the Gorge Group. The Gopher Bridge is a series of passage-ways between the entry into and exit from the ground of Cougar Creek, which disappears suddenly into a dark cavity and reissues at a point 450 feet lower down. Twice more it disappears in this way, the last time forever.

Near the Caves is a government cabin equipped with a cook-stove where camping parties may have lunch or spend the night.*

A full description of this phenomenon will be found in a booklet "The Nakimu Caves", issued by the Dominion Parks Department.

Hotel to end of carriage road, 4½ miles; trail to Nakimu Caves, 1½ miles.

Rogers Pass From Nakimu another trail leads north-easterly over Baloo Pass, between Ursus Major and Mount Grizzly on one side, and Mount Cheops on the other, along the flower-carpeted and wooded valley of Bear Creek, finally bringing one to Rogers Pass. The latter was the summit of the Selkirk range, as formerly crossed by the railway before the construction of the Connaught Tunnel, and the spectacular loop that was imperative for the track to reach the old station (which adjoined the hotel) can easily be imagined.

The stupendous precipices of Mount Tupper may be seen here to great advantage. The trail to the Rogers amphitheatre may be taken from this point, and the cabin there used as a base for exploring.

The return to Glacier House can be made by a direct trail from Rogers Pass, paralleling the old right-of-way.

Nakimu Caves to Rogers Pass, 5 miles; Rogers Pass to hotel, 4 miles.

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*"Nakimu"—Indian for "grumbling" or "spirits' noises"—a name easily accounted for by the weird sounds heard from the underground passageways into which Cougar Brook disappears.

Other Glaciers Besides the Illecillewaet and the Asulkan glaciers, Glacier Park has several other glaciers, including Deville, Rogers, Bonney, Black, Bishop's, Dawson, Geikie, Swanzy, Clarke, Fox, Eagle, Tupper, and Sulzer.

Climbing Glacier is a favorite centre for Alpine climbing. It is not advisable, of course, to attempt any climbs unless with guides; and for that purpose Swiss guides are stationed here all the summer.

PRINCIPAL ALTITUDES IN GLACIER PARK.

(in feet)

Abbott, Mount	8,081	Green, Mount	8,860
Afton, Mount	8,423	Grizzly, Mount	9,061
Asulkan Pass	7,710	Hasler Peak	11,113
Augustine Peak	10,762	Hermit Mountain	10,194
Avalanche, Mount	9,387	Kilpatrick, Mount	10,624
Bagheera Mountain	9,096	Macdonald, Mount	9,482
Bonney, Mount	10,205	Marion Lake	6,257
Cascade Summer House	5,252	Michel Peak	10,084
Castor	9,108	Napoleon, Mount	7,737
Pollux	9,176	Rampart, The	8,476
Catamount Peak	8,956	Rogers Pass	4,342
Cheops, Mount	8,506	Rogers Peak	10,536
Cougar Mountain	7,882	Ross Peak	7,718
Cyprian Peak	10,712	Selwyn, Mount	11,013
Dawson, Mount	10,982	Sir Donald, Mount	10,808
Dome, The	9,029	Swiss Peak	10,515
Eagle Peak	9,353	Tupper, Mount	9,229
Feuz Peak	10,982	Ursus Major	8,938
Fleming Peak	10,371	Ursus Minor	9,026
Fox, Mount	10,572	Uto Peak	9,610
Glacier House	4,086	Wheeler, Mount	11,023
Glacier Station	3,778		

Glacier to Revelstoke The westward journey, being resumed, continues downward from Glacier, following the Illecillewaet river past the bases of Ross Peak, Cougar Mountain, and Mount Green. A number of little tributary creeks run in on either side. At Illecillewaet station exit is made from the Park. From these western slopes of the Selkirks the journey is, with the exception of one or two minor ranges to climb, uniformly downward towards the Pacific.

The waters of the Illecillewaet river are at first pea-green, owing to glacial mud, but before long they clarify. A curious canyon is to be witnessed in Albert Canyon—where the daylight trains mostly stop for a few minutes for passengers to observe it. Here a deep fissure has been worn in the solid rock, its walls rising straight up on both sides

to wooded crags, the river boiling angrily below in a narrow 20-foot flume at a depth of 150 feet.

About ten miles from Glacier Park, Mount Revelstoke Park begins, and both the railway and the river parallel its southern boundary into the town.

Revelstoke, a flourishing little city set down in the midst of lofty and picturesque peaks, lies on the great Columbia Valley, which returning from its big "Horseshoe Bend, around the northern tip of the Selkirk Range, is now southward-bound for the United States. The city is the gateway to the beautiful Arrow Lakes to the south; a 27-mile branch runs down to Arrowhead, whence a steamer is taken for Nelson and the southern districts of the province. (See page 79).

MOUNT REVELSTOKE PARK

Mount Revelstoke Park, smallest of the mountain Dominion Parks (95 square miles), lies on the western slopes of the Selkirks. Bounded on the south by the Columbia River, it includes not only the striking mountain from which it derives its name, but also the Clach-na-Coodin Range—the latter a transplantation which should delight the heart of the Gael!

The park is thus altogether a mountain-top one. Mount Revelstoke itself can be climbed with the greatest of ease, for the grade, though at times a step one, is materially helped by the wonderful road that now* reaches almost to the summit. This road, as hard and as smooth as a city boulevard, has been constructed by the Dominion Government, and is suited to and used by automobiles. The distance from town to the summit is about 13 miles—twice the trail distance—and the drive thither takes from one and a half to two hours.

The road ascends by an easy grade through a virgin forest thick with underbrush, and vivid with blue-berry and huckleberry bushes. It is a tortuous route that winds around in sometimes a most extraordinary manner, along rocky ledges and on the verge of deep chasms. The glory of the ride is the remarkable view that can all the way up be obtained of the valley below, flat as a floor, the Selkirks to the southeast, the Gold Range to the south-west, and the two rivers like twisting ribbons encircling the town.

Near the summit is a beautiful lake, Balsam Lake; across a small valley towards the Clach-na-Coodin range are three others, Eva, Ella and Millar. The plateau has Alpine meadows, spangled with millions of beautiful wild flowers, and the park abounds in fish and game.

Winter Sports

Revelstoke has become widely known for its winter sports, for it has one of the finest ski-jumps in America and has produced some of the best jumpers of the world. A world record has been made on Revelstoke Hill—a professional jump (made in 1921) of 229 feet, as well as the Canadian amateur record of 204 feet.

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*Fall, 1922.

Hunting at Revelstoke Although both hunting and fishing can be obtained at Revelstoke of a remarkable character, a special word can be said for the former. Caribou, mountain goat, deer and bear are plentiful; one can see them often in the Park, where, of course, they are protected, while outside of its confines they can be freely shot in season. Experienced guides are available in the town.

Begbie, Mount	8,946 feet
Clachnacoodin Range (highest point)	9,000 feet
Revelstoke, Mount	7,983 feet

THE GOLD RANGE

Beyond Revelstoke is the Gold or Columbia Range. The most conspicuous peak is Mount Begbie, and just across the Columbia the range is entered by Eagle Pass. Four lakes, Summit, Victor, Three Valley and Griffin, occur at short intervals, and in turn force the railway into the mountain sides.

At Craigellachie an obelisk alongside the track commemorates the completion of the Canadian Pacific Railway. It was here, on November 7th, 1885, that the rails from the east met the rails from the west, consummating the first Canadian transcontinental railway. From Craigellachie, Sicamous, on Shuswap Lake, is reached in an hour. Sicamous is the junction with the Okanagan Valley Branch (see page 80), and has a very charming little hotel highly popular with those who stay overnight to see the ensuing canyon scenery by daylight.

JASPER PARK

Jasper National Park is a vast new Alpine playground in the heart of the Canadian Rockies, on the transcontinental line of Canadian National Railways, but a night's journey from Edmonton, Alberta.

Jasper Park is, indeed, the largest of the national parks of either Canada or the United States, having an area of 4,400 square miles. It extends, roughly, from the higher foothills of the Rockies westward to the inter-provincial boundary, its greatest length being about 150 miles. In the southern part it embraces a large forest reserve. The principal mountain ranges are the Maligne, Colin, Miette, and Fiddle; the principal lakes, Pyramid, Amethyst, Jasper, Brule, Medicine, Maligne, Fortress, Patricia and Beauvert.

Two of the greatest rivers of western Canada have their headwaters within its limits—the Athabaska, which forms part of the huge Mackenzie River system emptying into the Arctic Ocean, and the Saskatchewan, which eventually, under various aliases, reaches Hudson Bay. Besides these it has the Maligne, Snake, Miette, Indian, Rocky, Astoria and Smoky rivers. The Brazeau River, which later becomes the North Saskatchewan River, which in turn becomes the Saskatchewan, rises in the Forest Reserve.

But overshadowing everything else, both in size and in importance, is Mount Robson, a giant amongst giants. This truly magnificent peak is not exactly in Jasper Park; it lies just across the British Columbia border, but the government of that province, to conserve its glories, has created a provincial park, Mount Robson Park, immediately adjoining Jasper Park.

Jasper owes its name—as also does the celebrated Jasper Avenue in Edmonton—to the custodian of a North West Company's Post, established in the Athabasca Valley early in last century. This trader was Jasper Hawes. The park was created in 1907, and was enlarged to its present boundaries in 1914.

Although there is no direct connection by either rail or motor road between Jasper and Banff, one of the finest scenic camping trips in the Rockies is over the old Indian hunting trail from Banff to Jasper, or vice

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For altitudes in Jasper Park, see end of section.

MOUNT SIR DONALD—GLACIER PARK.

From a painting by
Charles W. Simpson, R.C.A.

versa. From Jasper it follows the main valley of the Athabasca river, passing Athabasca Falls, Fortress Lake, up the Sunwapti river, over the Wilcox Pass, down the north fork of the Saskatchewan river to the mouth of Bear Creek, over the Bow summit, and past the Bow Lakes into Lake Louise.

At Jasper, a little town 234 miles west of Edmonton, are located the artistic buildings of the Park Superintendent and his staff, but there is little accommodation for tourists. The tourist headquarters in the Park are at the charming Alpine chalets of Jasper Park Lodge, on the shore of Lac Beauvert, about a three-mile drive from Jasper Station. Here good accommodation may be obtained, and ponies and guides procured.

The Entrance to the Mountains

The westbound traveller gains his first view of the Rockies within five hours of leaving Edmonton, the peaks to the south of the Yellowhead Pass being discernible at a distance of about eighty miles, sparkling in the sunshine and rising one above the other in grand array. Guarding the entrance to the Park are two exceptionally fine mountains, Boule Roche and Roche à Perdrix.

The first of the lakes encountered is Brule Lake, an expansion of the Athabaska River; along its east bank the railway runs. At Miette Hot Springs the Fiddle Creek empties into the Athabaska River; the valley of this creek leads to the Hot Springs, which are found in several basins, the yellow incrustations revealing the strong sulphur content of the water.

A few miles further the Athabaska again widens into Jasper Lake, from which a trail leads along the foot of the Colin Range to Medicine Lake and Maligne Lake. Crossing to the opposite bank of the Athabaska near Henry House, and skirting the base of Pyramid Mountain, the railway soon reaches the little village of Jasper.

Lac Beauvert

Lac Beauvert—"beautiful green lake"—is a placid, horseshoe-shaped body of water of a remarkable clearness. It lies on the floor of a valley entirely surrounded by gigantic mountains. To the south can be seen the distant outlines of Mount Edith Cavell; to the southwest the Whistlers, and to the east, crowning the Colin Range, Roche Bonhomme. Lying to the northwest, across the Athabaska Valley, Pyramid Mountain stands out clearly and distinctly.

Maligne Canyon

This, one of the most interesting trips that can be made, is also one of the easiest, for a good motor road runs the whole way. Leaving Lac Beauvert, this

road skirts in succession Trefoil, Annette and Edith Lakes, finally turning east and climbing to the canyon at the crossing of the Maligne River.

This canyon affords several remarkable examples of the curious geological freak known as "potholes" — deep, cylindrical holes that demonstrate the eternal truth of the old poem that the constant dropping will wear away the stone. The canyon is about a mile in length and over 180 feet in depth, while at certain points at the top the width does not appear to exceed ten feet. The river, on entering the canyon, tumbles over a 75-foot cataract, and, thrown from side to side of the narrow gorge with the utmost velocity, has worn out, during the uncounted centuries during which it has thus been slowly finding lower and lower levels, the hard rock in huge potholes that twist the cataract into all shapes. Footbridges over the canyon gives a very good view of the best part of the phenomenon.

Below the canyon the river, as it joins the Athabasca, is a substantial stream of fair width, notwithstanding its narrow volume in the canyon.

Lac Beauvert to Maligne Canyon, 6 miles.

Pyramid Mountain

This is another very popular motor trip, or pony ride. The route is from Lac Beauvert to Jasper village, thence northerly to Cottonwood Creek and to Patricia Lake. Skirting the northern end of this beautiful lake, a short distance brings one to Pyramid Lake, crescent-shaped and deeply wooded.

To the northwest of Pyramid Lake lies Pyramid Mountain—a rugged, red-stained mass that is most aptly named. It can be climbed with comparative ease.

Lac Beauvert to Pyramid Lake, 6 miles; from Lake to end of road, 1 mile.

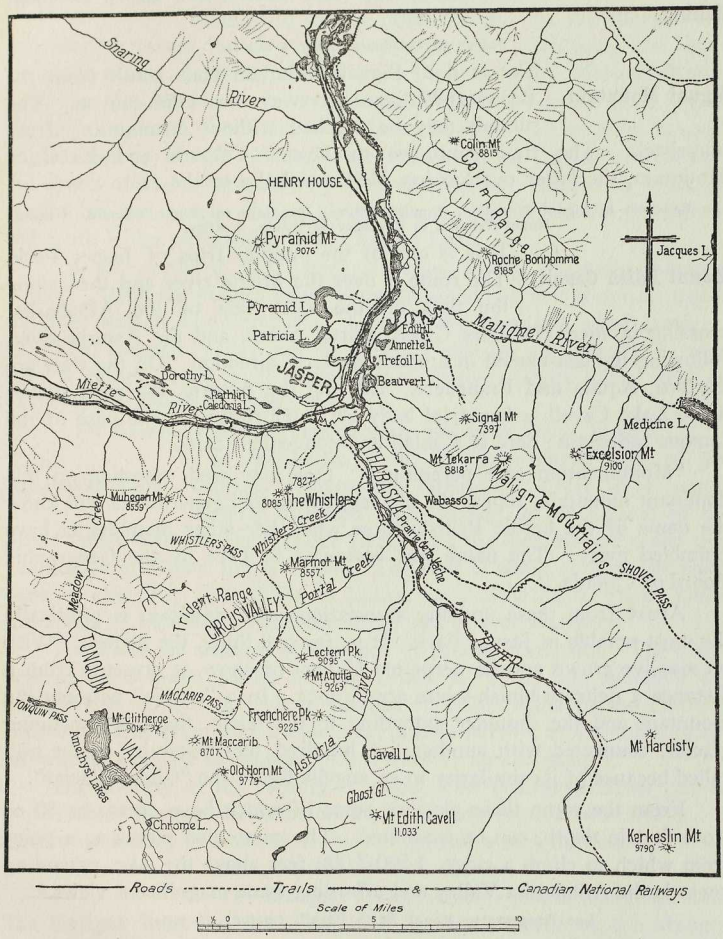
The Whistlers

Of the excursions that can be made by saddle pony only, that to The Whistlers is one of the shortest. These curiously-named twin peaks, lying to the southwest of Jasper, just above the junction of the Athabaska and Miette rivers, are easily reached by a good bridle-path that crosses the latter stream by a bridge. The trail runs almost to the summit, whose flat top affords an unrivalled and very accessible vantage point for viewing the broad sweep of valley below. The summit is the home of a large colony of marmots, whose shrill, unearthly whistles have given the mountains their name.

Lac Beauvert to summit of the Whistlers, 8 miles.

Caledonia Lake

Instead of crossing the Miette River, the same trail from Jasper can be followed along its banks to Caledonia Lake, with an extension to Rathlin and Dorothy Lakes. The trail mounts steeply at first, then runs along a high ridge.



JASPER PARK—CENTRAL REGION.

Rainbow trout are to be caught in these waters, and afford excellent fishing.

Jasper to Caledonia Lake, 4 miles.

Signal Mountain The trail to Signal Mountain runs south from the Beauvert-Maligne driveway, near the canyon. The summit may be reached without dismounting from horseback. The trail continues to Mount Tekarra and Excelsior Mountain, the latter overlooking Medicine Lake to the east.

Lac Beauvert to Signal Mountain, 7 miles; Signal Mountain to Mount Tekarra, 3 miles; Mount Tekarra to Excelsior Mountain, 2 miles.

Mount Edith Cavell This is one of the premier trips of Jasper Park. The route is over the Miette river and then along the flats on the west side of the Athabaska, crossing in turn Whistlers Creek, Portal Creek, and the Astoria river, following the last-named in a south westerly direction. On the west are Lectern, Aquila and Franchere. Leaving the Astoria, the road strikes up to Lake Cavell, a beautiful body of water resting at the base of the famous mountain; here is a small and convenient camp.

"Monumentum aere perennius!" One may well, standing on this dominant mountain, repeat the old tag, for untold generations will know the name of the heroic British nurse when her other monuments have crumbled away. The name was bestowed in 1915 by the Geographic Board of Canada.

Apart from these undying associations, the mountain is physically the most notable in Jasper Park. It is, for one thing, the highest. With its massive crown and its perpetual blanket of snow, it presents from a distance a delicate bluish-white appearance. In a "cirque" between the mountain and the shoulder extending to the north, there is a hanging glacier, connected with another five hundred feet below by an ice hill, called because of its similarity to an angelic figure the "Ghost Glacier".

From the camp these glaciers, some of which have crevasses 50 or more feet in depth, can be examined. The camp also serves as a point from which to climb a ridge, 1,500-2,000 feet above the lake, extending towards the Athabaska Valley and affording some magnificent views.*

Lac Beauvert to Mount Edith Cavell, (motor) 18 miles.

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*During the summer of 1923, the motor road to Mount Edith Cavell was extended from the valley of the Athabasca river and up the valley of the Astoria river, to Lake Cavell. This road commands a splendid view of the Astoria Valley, including Mount Edith Cavell and the entrance peaks to the Tonquin Valley, Franchere Peak, The Throne and Mount Fraser.

Tonquin Valley The route to the Tonquin Valley is for awhile the same as to Mount Edith Cavell. At Whistlers Creek, however, it leaves the driveway and turns west, following the latter up open grassy slopes to the Marmot Pass, between Marmot Mountain, the Whistlers and Indian Ridge. South from the pass a trail descends to Portal Creek and over Maccarib Pass. Three miles beyond, at the base of Mount Clitheroe, are the Amethyst Lakes—two beautiful sheets of water connected by a narrow channel, flanked by towering mountains and gently sloping green forests. About a mile further to the south is the picturesque little Chrome Lake.

To the north of the Amethyst Lakes is the charming Tonquin Valley. Along its western side, rising thousands of feet above it, stands the huge wall of The Ramparts. Close to the lakes is a small camp.

The Tonquin Valley can be reached also by an alternative route over a rather rough trail from Geikie Station (eight miles west of Jasper), via Meadow Creek.

Lac Beauvert to Amethyst Lake, 25 miles; from Geikie Station, 15 miles.

Athabaska Falls The Athabaska Trail, the immemorial trail of the Indians, follows the Athabaska River in a southeasterly direction from Jasper, at the bottom of the broad valley between the Maligne Range and the long tier of peaks that culminates in Mount Edith Cavell. The trail is along or near the east* bank of the river, past Wabasso Lakes, La Prairie de la Vache (once the abode of buffalo), Whirlpool River and Mount Hardisty.

The Falls are situated at the foot of Mount Kerkeslin. The river, peaceful and quiet, comes flowing round a curve; but suddenly the banks close in, and the whole volume of water leaps forward into a canyon 80 feet deep, half a mile long, and so narrow at the top that the adventurous athlete is tempted to try whether he can jump it.

The country in the vicinity is wild. The Whirlpool River can be explored, or Mount Kerkeslin climbed (an easy trip of two hours). A government camp is situated at the canyon and a tent for visitors.

Jasper to Athabasca Falls, 20 miles.

The Maligne Trail The Maligne Trail, the other of the two great trails of the Park, and the continuation of the Maligne Canyon driveway, is the route to Medicine,

*The new trail to Athabaska Falls follows along the west banks of the river (from which Prairie de la Vache on the east side is visible) and crosses the Whirlpool river over a log bridge. The trail then winds through green pine forests to the Falls, passing several interesting little lakes on the way.

Maligne and Jacques Lakes. Unlike the Athabaska Trail, however, it has no particular history, and has been constructed within fairly recent years.

Leaving the Canyon, it runs easterly along the northern side of the Maligne River, along whose bed, until the subterranean passage was created, flowed the main stream. Now it is narrow and shallow, flanked by moss-grown boulders. On the south is the Maligne range, on the north the Colin range, between them a virgin forest.

Medicine Lake, four and one-half miles long and a half mile wide, is the first stop. Although fed by the Maligne River, it is without visible outlet, the surplus waters being carried off by an underground passage. Some prehistoric convulsion of Nature flung a barrier of rock across the original outlet.

At the eastern end of the lake the trail forks. One branch runs around the lake and still further along the river to Maligne Lake, twenty miles long and surrounded by mountains, glaciers and falls. The other branch runs north and past the picturesque Summit Lakes to Jacques Lake, a small body of water that contains excellent trout. An old Indian trail leads over the summit, down Jacques Creek, to Interlaken.

A small chalet is situated at the western end of Medicine Lake. The return journey can be made from Medicine Lake or Maligne Lake over Shovel Pass to the Athabaska Trail; or from Jacques Lakes northeast to Rocky River and then down this river to Interlaken whence train for Jasper can be taken (15 miles).

Lac Beauvert to Medicine Lake, 15 miles; Medicine Lake to Maligne Lake, 15 miles; Medicine Lake to Jacques Lake, 13 miles; Medicine Lake to Jasper via Shovel Pass, 20 miles; Jacques Lake to Interlaken, 30 miles.

The Yellowhead Pass

The Yellowhead Pass, by which the railway crosses the mountains, has the lowest altitude of any line that crosses the Cordillera range of North America. For many generations the great natural artery of the fur trade, it owes its name to the Jasper Hawes to whom reference has already been made. His shock of yellow hair, the "Tete Jaune" of former nomenclature, was so well-known to the Indians with whom he traded that it became identified with the geography of the locality.

The railway winds along the Miette River, climbing less than two hundred feet from Jasper to Lucerne, where, leaving both Alberta and Jasper Park, it enters British Columbia and Mount Robson Park.

PRINCIPAL ALTITUDES IN JASPER PARK.

(in feet)

Alberta, Mount	12,000	Jasper, Lake	3,284
Amethyst Lakes	6,450	Jasper Station	3,469
Annette, Lake	3,344	Kerkeslin, Mount	9,790
à Perdrix, Roche	7,002	Lectern, Mount	9,095
Aquila, Mount	9,269	Maccarib Pass	7,150
Beauvert, Lake	3,356	Maligne, Lake	5,525
Bonhomme, Roche	8,185	Marmot Mouuntain	8,557
Boule Roche	7,230	Medicine Lake	4,720
Brulé, Lake	3,230	Patricia, Lake	3,840
Caledonia Lake	3,810	Pyramid, Lake	3,867
Cavell, Lake	5,610	Pyramid, Mountain	9,076
Chrome Lake	5,950	Rathlin Lake	4,197
Clitheroe, Mount	9,014	Shovel Pass	7,050
Colin Range	8,100-8,800	Signal Mountain	7,397
Diadem Peak	11,500	Stutfield Peak	11,400
Dorothy Lake	4,983	Tekarra, Mount	8,703
Edith Cavell, Mount	11,033	Trefoil Lake	3,351
Edith, Lake	3,339	Twins, The	11,800
Excelsior Mountain	9,100	Wabasso Lake	3,700
Fortress Lake	4,330	Whistlers, The, West Peak	8,085
Franchere, Mount	9,225	Whistlers, The, East Peak	7,827
Hardisty, Mount	8,900	Woolley Peak	11,700
Hooker, Mount	10,505	Yellowhead Pass	3,716
Indian Ridge	8,941		

MOUNT ROBSON PARK

Mount Robson Park, as has been said, is a British Columbia Provincial Park, with an area of 640 square miles. Running roughly through its middle is the Rainbow Range; and apart from the gigantic peak which is its chief interest, it has another feature, in that the Fraser River, the principal waterway of British Columbia, has its head waters in the Park. The Fraser rises at the west side of Mount Fraser, just west of the Yellowhead Pass, and parallels the railway first on one side and then on the other, for over 200 miles before making its big bend south. Besides Mount Robson, the principal mountains of the park are Mounts Resplendent, Rearguard, Whitehorn, Lynx, Geikie, Fitzwilliam and the Helmet.

Mount Robson

Mount Robson is the highest mountain in the Canadian Rockies.* Hidden at first by the nearer Rainbow mountains, it bursts into view where Grand Forks River enters the Fraser. Only a few miles away, at the head of the low valley, its tremendous cliffs, mostly too steep for snow to be, rise to a pointed, snowy pyramid.

Few mountains in the world can surpass this peak in beauty of form. Surrounded though it is by other gigantic rock masses, it towers nearly ten thousand feet above the valley and nearly 2,000 feet above its nearest neighbor, Resplendent. The traveller has an excellent view of it from the line, and, indeed, for twelve miles after leaving Robson Station.

Associated with the mountain are three glaciers. A trail leads up the Grand Forks through a magnificent forest of giant cedar and fir through the Valley of a Thousand Falls. From the end of this valley, by means of flying trestles bolted to sheer cliffs, an ascent to Berg Lake may be made. Just after the ascent is made, Emperor Falls, with a drop of 140 feet, come into view. From this beautiful blue lake a magnificent view can be obtained. In one direction is to be seen Tumbling Glacier, which extends two miles in horizontal distance. To the right is Mist Glacier. Robson Pass gives access to the great Coleman Glacier.

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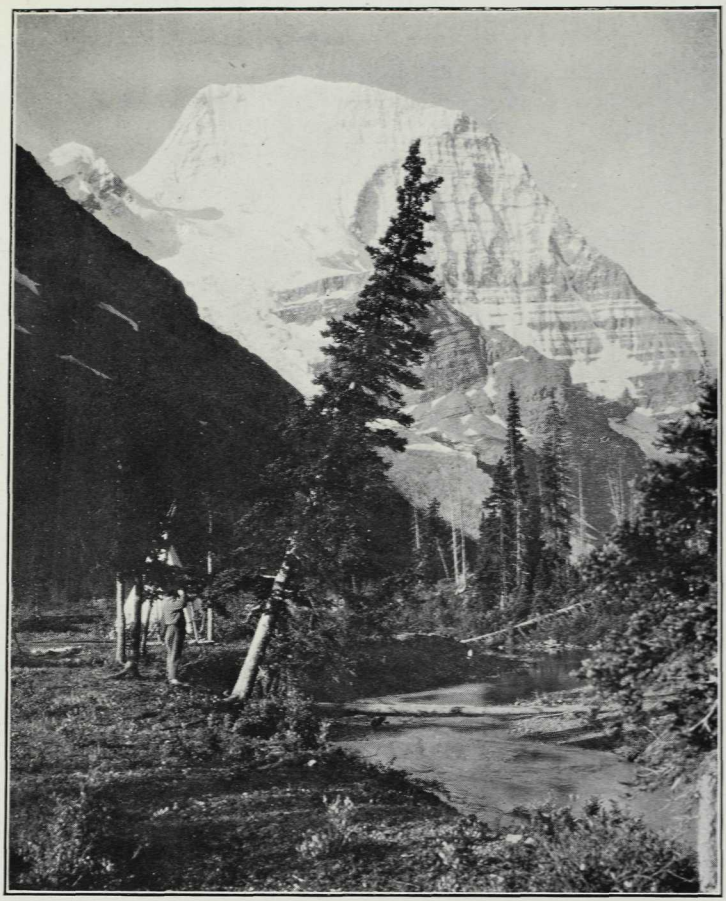
*Mount Fairweather (15,292 feet) although in British Columbia, is really one of the "boundary group" of the far north. This group includes seven in the Yukon, as well as many in Alaska, which are higher than Robson; chief of them are Mount Logan (19,539 feet)—the highest mountain in Canada, and Mount St. Elias (18,024 feet.)



MOUNT ROBSON—THE GIANT OF THE CANADIAN ROCKIES.
(13,068 feet.)

Tumbling Glacier, like the Wenkchemna Glacier at Lake Louise, is advancing instead of retreating.

Accommodation

A permanent camp, Mount Robson Camp, is situated on a plateau about three miles from the station. There are cottages on the shore of Berg Lake for the accommodation of tourists.

Fishing and Hunting

Good trout fishing may be obtained in Jasper Park, in Brazeau Lake and River, Jacques Lakes, Rock Lake, Pyramid Lake, Caledonia Lake, Buffalo Creek, Portal Creek, etc.

Both Jasper Park and Mount Robson Park are sanctuary for wild game, and hunting is prohibited. Outside their confines, however, fine sport can be secured, including mountain sheep, mountain goat, grizzly, cinnamon and black bear, caribou, deer and moose. For full information upon best locations, hunting laws, etc., any of the various guides should be consulted.

ALTITUDES, MOUNT ROBSON PARK.

(in feet)

Berg Lake	5,506	Rearguard Mountain	9,000
Dome, The	10,098	Resplendent, Mount	11,173
Geikie, Mount	11,016	Robson, Mount	13,068
Helmet, The	11,160	Robson Pass	5,550
Lynx Mountain	10,471	Whitehorn Mountain	11,101

Robson to the Coast

The Pacific-bound traveller has his choice of two routes—one to Vancouver, the other to the most northerly Canadian town of any size, Prince Rupert. The former is south-westerly, down the canyons of the Thompson River between the Gold and Cariboo ranges, joining the Fraser at Lytton. (See page 75). The latter route is roughly westward via the Fraser River to Prince George, modern successor to a very early Hudson Bay post. Then it strikes up the fertile Nechako Valley, after which it follows the Bulkeley River until it meets the Skeena River, a famous salmon river, which the railway follows until Prince Rupert is reached.

DOWN HILL TO THE PACIFIC

The Cascade Range, which is practically the westernmost wall of the mountains, reminds one somewhat of a singer's encore number. It is given because the audience demands more; but it might frequently be better appreciated if it were given first. Between this humbler range and the Pacific Ocean lie nearly three hundred miles of canyon scenery—scenery so astonishing that at times even the bored trainman leans over to look upon it; but one notices a far from subtle difference between the judgment of those who leave the mountains by the canyons from that of those who enter by them. The encore has become, so to speak, a curtain-raiser.

In many ways these canyons are as remarkable as anything in either the Rockies or the Selkirks, and the traveller is exceedingly well advised who so arranges his journey that it is daylight when he passes through them on his first journey at least. They are deeply eroded grooves in a more or less flat tableland through which swiftly flowing rivers rush downward towards the Pacific—first the Thompson River and then the Fraser. The railways follow their course exactly, at varying heights in the gorge; and while there may be other and much more famous canyons which are deeper, wider, or more awe-compelling, these have the advantage that one need never leave a railway car in order to see them.

The Thompson River

The Thompson River has two forks, which, appropriately enough, are the routes of rival railways. The South Thompson, emptying the beautiful Lake Shuswap, brings the Canadian Pacific Railway to meet the Canadian National Railway, which has followed the North Thompson down from Yellowhead Pass. They meet just west of Kamloops and thenceforward are seldom out of sight of each other for over 150 miles. Kamloops, the chief town of the interior country of British Columbia, is a prosperous community deriving its livelihood from ranching, irrigated farming, mining, lumbering, and—to some extent—its attractive climate.

The Thompson Canyon begins near Wolfenden and has its outlet opposite Messiter. The hills press close upon the river, which cuts the way through a winding gorge of desolation. Beyond this, the train follows the river as it winds swiftly among the round-topped, treeless and water-cut hills. Beyond Spence's Bridge the line runs upon a

ledge cut out of the hills on the irregular side of the stream, where the headlands are penetrated by tunnels and the ravines spanned by lofty bridges. At times the banks are rounded, cream-white slopes; next jut out cliffs of richest yellow, streaked and dashed with red; then masses of rusty-brown earth, interspersed with olive-green slopes. Below the Thompson swirls, as green as an emerald.

The Fraser River

At the small trading town of Lytton the canyon suddenly widens to admit the Fraser, the chief river of British Columbia, which comes down from the north between two lines of mountain peaks, and whose turbid flood soon absorbs the bright green waters of the Thompson. The names of both rivers commemorate pioneer explorers of the Pacific Coast. The scenery grows wilder than ever. At Cisco the railway suddenly crosses from one side of the gorge to the other; on the east bank can be seen the old Government road—now abandoned—leading up-country to the Cariboo country, scene of a famous "gold rush" in the 'sixties.

The canyon alternately widens and narrows. Indians may occasionally be seen on projecting rocks at the water's edge, spearing salmon or scooping them out with dip-nets, and in sunny spots the salmon are drying on poles. North Bend is a convenient place from which to explore the region more thoroughly. At four miles below it the principal canyon begins, and from here onward for twenty-five miles the scenery is startling. The great river is forced between vertical walls of black rocks, where, repeatedly thrown back upon itself by opposing cliffs, or broken by ponderous masses of fallen rock, it madly foams and roars. The jutting spurs of the cliff are pierced by tunnels in close succession. One should particularly watch for "Hell's Gate", where two jutting promontories suddenly compress the river and force it to escape in a roaring cataract through a narrow outlet.

Yale, a mining and outfitting town that was once the leading place of the province, is nearly a thousand feet lower than Kamloops, and only 200 feet above sea level. Thenceforward the river widens and becomes less turbulent, and the journey is through broadening and well-cultivated valleys, given over to fruit-farming and dairying. Soon the railway is running through a meadow-like country, and leaving the Fraser altogether shortly after arrives at Vancouver.

WATERTON LAKES PARK

Waterton Lakes Park (area 129 square miles) is one that is probably better known to—and more visited by—Americans than it is to or by Canadians, for while it is rather difficult of access to the latter, it adjoins the well-known American National Park, Glacier Park. Its creation (in 1914) was in fact due more than anything else to the understanding reached between Canada and the United States that the Waterton Lake, one of the principal attractions of the northern part of Glacier Park, should not be in the equivocal position of being national property at one end and private property at the other.*

Roughly lozenge-shaped, the park is entirely within the province of Alberta, bounded on the west side by British Columbia and on the south by the State of Montana. The principal lake lies athwart the international boundary, with slightly more than half its length in Canada. To the north-east are two smaller lakes, connected by a narrow channel known as the Dardanelles and drained by the Waterton River, which is in turn a tributary of the important Lethbridge River.

Fine Fishing

The scenery in Waterton Lakes Park is not excelled in beauty by that of any other part of the Rockies. Rising abruptly from the plains, the mountains are at once impressive and friendly; and lifting to not too difficult heights, they seem always to be an inviting mood. The vivid and exceptional coloring of the lakes and strata, the numerous waterfalls and streams fed from the glacier-crowned mountains, and the dense forests that creep down to the water's edge, all lend to the charm of this resort.

No district in the Rockies is more popular for angling purposes. The smaller lakes and streams abound in Dolly Varden and cutthroat trout, while in the upper Waterton lake are found the great lake trout, specimens of which have been taken weighing over fifty pounds .

The Park lies about thirty miles south of the Crows-nest Pass line of the Canadian Pacific Railway and can be reached, in addition to the approach from Glacier Park, from either Pincher on that line (35 miles) or from Cardston (30 miles) on a branch from Lethbridge. In either case the road into the Park is an excellent one. There is a good hotel, and ample facilities for camping and picknicking.

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*First established as a reserve in 1895.

A nine-hole golf course, ideally situated on a slight rise which gives a fine view of the lakes, has been laid out about a mile and a quarter from the townsite, near Blakiston creek. Good turf was found for the fairways, and the natural hazards encountered ensure the sportiness of the course.

Waterton Lake—altitude 4,186 feet.

MOUNT GARIBALDI PARK

Mount Garibaldi Park, a British Columbia provincial park of over 300 square miles in area, lies in an almost directly northern line from Vancouver at a distance of about 70 miles. It is reached by steamer from Vancouver to Squamish and thence by Pacific Great Eastern Railway to Daisy Lake. The park is a rugged alpine area of peaks, glaciers, snow-fields and lakes, dominated by the ancient volcanic cone of Mount Garibaldi (8,700 feet). Amongst the other mountains are Manquam, Black Tusk, Castle Towers, Helmet Peak, the Table, Sentinel Range, Sphinx, and the Pyramid. In addition to the magnificent scenery of the country, fine fishing and hunting are to be obtained.

WHERE THE CROWS NEST

The southern route through the mountains is a little sister of the main line routes—something, indeed, of a Cinderella. It does not advertise, at least not very much; and whilst the queenly Kicking Horse Pass and the stately Yellowhead Pass array themselves in their summer finery, the Crows' Nest Pass stays at home and stays very close to its knitting. A true Cinderella, it lives amongst the coal, for this Crows' Nest Pass country is one of the most important coal-mining districts of Western Canada, while its continuation, the Boundary country, is one of the most important metal-mining regions of the world.

But you will remember that in the story Cinderella did go to the ball, and that when the Prince came looking for her, hers was the only foot that the slipper would fit. There are not signs wanting that this beautiful lake-gemmed region of southern British Columbia is coming into its own, more especially as it can now be so easily reached from the north. If you study the map you will see that the northern route and the southern route are tied together at three places, each time through lakes—Golden and Cranbrook through Lake Windermere, Revelstoke and Nelson through Arrow Lakes, Sicamous and Penticton by Okanagan Lake. By these you can dip down into this sun-warmed, blossoming country between the mountain ranges.

Crows' Nest

Macleod, practically due south of Calgary, is 300 feet lower in altitude. Crows' Nest, the highest point reached by the railway between Macleod and Vancouver, is 4,444 feet above sea-level, nearly a thousand feet less than the Great Divide. But we ascend quickly, past many prosperous mining towns of a size surprisingly large. Of these towns Frank may be accorded more than a fleeting glimpse, for it was the scene in 1903 of a terrible catastrophe that is still all too well-remembered—the "Frank Slide", when part of the mountain slid down like an avalanche and wiped out the entire town. Some of the debris—masses of rock weighing many tons—can still be seen at no great distance from the track.

The mountains rise in great masses on either side, entrance being gained by a narrow defile beside Turtle Mountain. Looking to the northwest, the first view of Crows' Nest Mountain is obtained. This circular monolith, its base deeply tinted in purple and green, its crown capped in a dazzling mass of snow and ice, dominates the entire country from its

height of 9,138 feet. The origin of its name is rather provocative, and has split up the "old timers" of the locality into several schools. One school maintains that crows did nest there—to which another replies (if our memory serves us rightly) that crows are not native to this region but that Crows are; in other words, that the Crow Indians "nested" there. Still another school inclines to the marine theory of a "crows' nest", meaning an eyrie or look-out point. You pay your money and you take your choice. Crows' Nest Lake, a few miles away, has a Wagnerian sub-title that would make it the "birthplace of the winds".

And so, entering British Columbia, we descend to Fernie and Cranbrook, crossing the Kootenay River before reaching the latter. The rivers of British Columbia have peculiarities that by this time will probably have demonstrated themselves. They often seem to flow, for example, in the wrong direction. The Kootenay flows south into the United States but returns to pour its flood into Kootenay Lake, which in turn feeds the mighty Columbia on its way south but which began by fllowing north. Kootenay Lake is the first break in the railway journey, for at Kootenay Landing, a settlement which so far as one can see consists of a station that gradually runs under water, the train runs alongside one of the flat-bottomed stern-wheel steamers that are a feature of these lakes.

Nelson

Kootenay Lake is a beautiful body of water lying in a trench between two ranges of the Selkirks, and runs for seventy miles almost due north and south. On either side the mountains dip sometimes steeply into the water; at other times they afford shelter to little ledges of fertile land, clinging to their base. Here and there on these ledges are fruit farms, at some of which the steamer will call—often dispensing, because of its flat-bottomed adaptability, with the formality of a wharf. Presently it turns round into the West Arm and to Nelson.

Nelson, the metropolis of this southern country, is a highly attractive little city that tries to stagger up a mountain-side. This mountain is the "Silver King" of happy memory—happy that is, for its stockholders; in fact the whole region is studded with names very reminiscent of that section of the Financial Page headed "Mining Stocks". Nelson has a delightful summer life as well as commercial importance. Those who stay over here will find aquatic sports in all their fifty-seven varieties, fine fishing, and many charming excursions. Of the latter one is by steamer up the lake to Kaslo, which faces the magnificent range of the Selkirks; another is by rail to Slocan Lake, an upland gem between two

ranges. From West Robson a splendid steamer trip takes one northward through the Arrow Lakes to Arrowhead and Revelstoke.

Kokanee Park

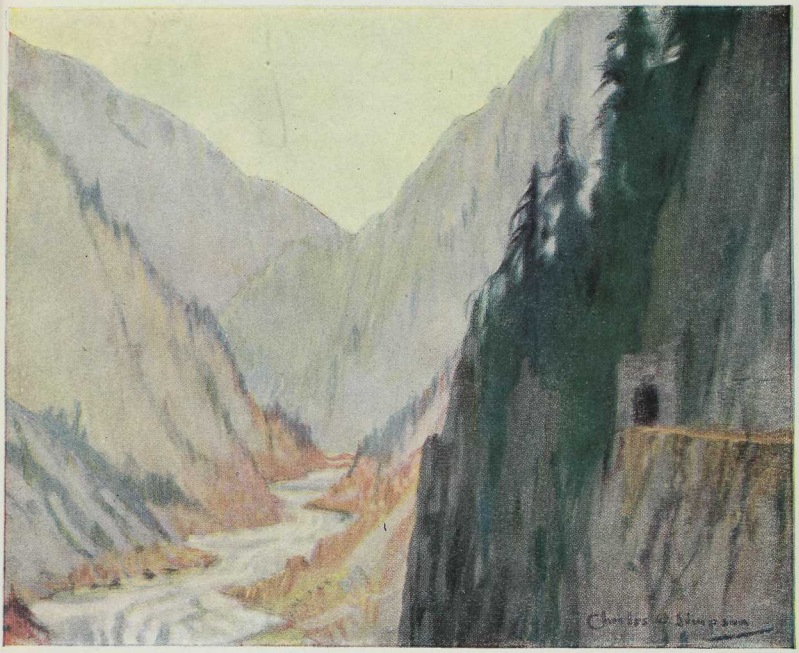
Kokanee Park, a new provincial Park created by the British Columbia Government, covers an area of ten square miles at the headquarters of the many creeks draining to Kootenay and Slocan Lakes. It is accessible by road from Nelson or Kaslo, and by trail from Slocan; the Kootenay Mountaineering Club of Nelson has for many years visited this region, which has glacier-fed mountains reaching to 9,500 feet.

The journey westward from Nelson is resumed by railway through the "Boundary" country. Branches run southward to the rich copper-mining districts of Trail and Rossland. Then, climbing again, we begin the Kettle Valley route, which brings us through rich agricultural districts, and then down again to the Okanagan Valley.

Okanagan Lake

Penticton, at the southern end of Okanagan Lake (another lake traversed from end to end by steamers, this time linked with Sicamous) has grown celebrated on fruit, and especially on peaches, for the fruit of the Okanagan Valley is famous wherever prizes are handed out. The fruit is grown generally on "benches"—orchards rising tier upon tier in gigantic steps, and almost invariably under irrigation. Penticton, with its mild climate and its beautiful beach, is becoming a popular resort, although one scarcely dare say so for fear of arousing the antagonism of its deadly rival, Kelowna, sixty miles up the lake.

The last lap of the journey is over the Cascade Mountains through the Coquihalla Pass. The scene is one of rugged grandeur, where vegetation disappears and where the solid rock crags and peaks defy invasion. The "Quintette Tunnels" are one of the most astonishing feats of engineering of this section, and indeed of Western Canada. Following the Coquihalla River down the western slope of the Cascades, the railway reaches the Fraser River at Hope, crosses it by a steel bridge, and there unites with the Canadian Pacific.



THE FRASER CANYON.

From a painting by
Charles W. Simpson, R.C.A.

MOUNTAIN CLIMBING FOR YOUNG AND OLD

Hints to Mountain Climbers

The opportunities for mountain climbing in the Rockies and Selkirks have been suggested several times in previous pages. To this it may be added that the novice should feel himself at no disadvantage merely because he has had little previous experience. Provided he has ordinary stamina and nerves, there are scores of easy excursions available; on some, indeed, he (or she, in fact) can ride or walk good trails almost to the summit, while on others a short scramble will bring him to his goal.

For the harder-bitten enthusiast, there are as many really difficult climbs, which should not be attempted except by experienced climbers and with the assistance of professional mountaineering guides. The Canadian Alpine Club (see below) has performed a very notable function in democratizing and cheapening these longer climbs, and in diffusing a greater appreciation of mountaineering in Canada.

It goes almost without saying, of course, that mountain-climbing should not be attempted without suitable equipment and clothes, of which proper boots are amongst the most important. Women will find their ordinary clothes absolutely useless.

The Alpine Club of Canada

The Alpine Club of Canada, which has done more, perhaps, to forward the love and science of mountaineering than any other agency in this country, was founded in Winnipeg, in 1906. Its objects are the promotion of scientific study and exploration of Canadian alpine and glacial regions: the cultivation of art in relation to mountain scenery: the education of Canadians to appreciation of their mountain heritage: the encouragement of the mountain craft and the opening of new regions as a national playground: the preservation of the natural beauties of the mountain places and of the fauna and flora in their habitat: and the interchange of literature with other alpine and geographical organizations.

Active members are those who have made an ascent of a truly alpine, glacier-hung peak rising at least 2,500 feet above the timber line of its region, as well as those distinguished in literature, science or art relating to mountains, alpine explorations, or travel. Graduating members are those who have not yet qualified for active membership.

The Club has a charming Club House at Banff, the headquarters of the Club. A valuable library is located here.

The Annual Camp The Alpine Club Camp, one of the most notable events in the mountains, is held every year at some different spot, surrounded by climbs of varying difficulty and a centre for fascinating excursions. There graduating members qualify and novices learn correct methods. These camps have been held regularly since 1906.

The Club is affiliated with the Alpine Club of England, the parent and most distinguished of all Alpine Clubs. It was represented in the 1921 expedition to Mount Everest by one member, and in the 1922 expedition by two members.

The Canadian Alpine Journal, the organ of the Club, is a magazine of high standing that contains articles of value to all interested in mountaineering matters, with fine illustrations. In it are to be found accounts of the many first climbs and original explorations of importance made by members of the Club.

The Secretary-Treasurer of the Club, from whom fuller information can be obtained, is Mr. S. H. Mitchell, Sidney, B.C., (during the summer, at the Club House at Banff.)

HOW MOUNTAINS GREW

Geological "The Canadian Rocky Mountains, though not one of the highest, are one of the longest and most continuous chains in the world", says A. P. Coleman in his book "The Canadian Rockies": The vast preparatory laying down of rock began at a very remote age, in the Cambrian, and continued through the long ages of the Silurian, the Devonian and the Carboniferous. At the end of the Mesozoic the actual building began. "The Coast Range and the Selkirks, long ago pushed up and consolidated, drove before them this softened, plastic belt of former sea bottom, crumpling, crushing, folding the rocks and piling them up in confused windrows, 1,600 miles long, sixty miles wide, and several miles high. We must not conceive of this debacle as the result of one overwhelming push, however. The thrust was probably of a few feet at a time, but renewed for many thousands of years, each time causing the earth to shudder in an earthquake, until the great work was accomplished and a new mountain range was elevated parallel to the old ones which fenced the continent from the Pacific.

"At the completion of the work the Rocky Mountains were perhaps as lofty as the Andes or Himalayas, for the tooth of time has been de-

vouring their summits during all the millions of years between the Eocene and the present, so their full stature must have been diminished by thousands of feet.

The Writing Desk Formation

"Along the line of Bow Pass this evidence has been somewhat fully worked out by Mr. McConnell of the Canadian Geological Survey, who finds the western part squeezed into folds, while the eastern has been broken into six long blocks, each tipped up toward the east and riding upon its neighbour, thus forming the 'writing-desk' mountains so common between Bow River and the Brazeau.

"McConnell estimates that the easternmost range was pushed seven miles out over the prairie, and that the whole series of blocks mean an over-riding of twenty-five miles. If they could be slipped back into their places and the surface smoothed out again, what now covers twenty-five miles in width would then measure fifty. How much slack has been taken up in the folds of the western side he does not estimate.

"The original tilted blocks and symmetrical or overturned folds were, of course, only the raw material out of which the present mountains have been carved, and the file and chisel are still busy in the shaping process, which will never be complete till the ranges are worn down to hills or a plain.

"The Selkirks, however, much older than the Rockies and exposed to even more violent attacks, must have received an important hoist within the last few millions of years to make the fine showing they do.

"It is rather surprising that the Rockies were elevated with so little volcanic activity. Lavas and ash rocks are entirely wanting except toward the south, though they are massively developed in the Gold Ranges west of the Selkirks."

Glaciers

Apart from their grandeur and beauty as masses of bare rock and verdure, the Rockies have superb and everlasting snow fields and mighty glaciers.

Broadly speaking, a glacier is an accumulation of ice of sufficient size and weight to flow down from a snow-covered elevation. It is a river flowing from a lake, only it is a lake of snow and a river of ice. The thickness of the ice will vary greatly according to local conditions; when these are favorable, it may be as much as 1,000 feet or more. Frequently glaciers extend far below the snow line of the region, because their great masses of ice are so thick that they are not entirely melted

during the warm summer months. In the Canadian Rockies, the traveller finds glaciers threading their way down from almost every high peak.

Since snow falls every month in the year on the snow fields and never melts away, one might expect the mountains to grow as snowheaps into the sky; but of course this does not take place. Under the increasing load of snow the lower beds are compressed into ice; so that the snow, beginning as loose or hard-drifted snow above, passes downwards into ice banded with blue and white layers, the whole sometimes hundreds of feet in thickness. The upper part of a glacier where this change from snow to ice is constantly going on is called the "névé region".

Glaciers Move

The primary function of a glacier and a river are identical, the drainage of a certain district or basin. Exactly how and why a glacier moves has not yet been satisfactorily explained, but that it does move may easily be proved by hundreds of observations.* The stream at the centre of a glacier moves much faster than at the sides or the bottom, while on a curve the outside edge has a more rapid rate of flow than the inside. At a narrow point the flow is more rapid than at a broad one, and in especially uneven places the ice may be broken up into pinnacles, just as water foams through a rapid.

When the bed of the glacier is steep, the surface of the ice becomes very much broken, and where lateral and transverse crevasses intersect, ice towers and pinnacles (seracs) are found. These often attain a height of many feet, and are most beautiful, appearing in the sunlight as though made of exquisitely banded white and blue marble.

Moraines

The power to transport rocks and other material over great distances is one of the most interesting characteristics of glaciers. The rocks which fall on the névé from the cliffs above are soon buried under a bed of snow. When this, changed to ice, begins its slow journey to the lower valleys, it bears its burden of rocks. A large part of the melting takes place at the surface of the ice where it is most exposed, so that stones once buried in the névé region gradually come to the surface as the ice above them melts. Here they ride along till deposited at the side or at the end of the glacier. In this way long regular heaps or "moraines" are formed, from which it is often easy to trace changes in the glaciers. Moraines are designated by their position as medial, lateral and terminal. Blocks as large as cottages now and then roll down upon the ice and are transported without trouble. Medium-

*See notes to the Illecillewaet Glacier at Glacier, page 56.

sized blocks a few feet across, called "glacier tables", are left standing on pedestals of ice as thawing goes on all around them.

Glaciers in Retreat

The glaciers of the Canadian Rockies, like those of other countries, are now almost all in retreat, either because the climate is slowly growing warmer so that thawing goes on faster, or because the snowfall is lessening. On this account one can often see several terminal moraines down the valley below the one now forming. The nearest to the present end of the ice is almost bare; the next, a few hundred yards away, may have bushes growing on it, while others a mile or two away may be covered with ancient forest.

Glaciers once filled all the mountain valleys and even pushed out through the passes into the prairies and through the fiords to the sea, for everywhere one finds boulder clay and moraines and valleys with U-shaped cross sections that can only be accounted for by glacial action on a large scale.

NATURE IN THE ROCKIES

The various national parks are, as one would naturally assume, game sanctuaries in which hunting is prohibited. As a consequence, they are a paradise of wild animals "The value of sanctuaries" (says M. B. Williams) "has perhaps nowhere been better established than in the Canadian National Parks. Within two years of the enforcement of an adequate protection, the wild life began to come back. Mountain sheep, mountain goat, black bear, moose, elk and blacktail deer may now be seen in large numbers, rapidly losing all fear of man.

"It is noticeable that the animals follow the roads and trails into the park, and since the construction of the new motor road into the Kootenay district large numbers of game have come in from British Columbia."

Of especial interest are the goat and the sheep, both of which are found in largest numbers and closest to human habitation in Rocky Mountains Park and Jasper Park. The Rocky Mountain goat is the most daring of all mountain climbers, remarkably sure-footed, and delights in scaling great heights and taking perilous leaps across chasms. His coat is white, soft and fluffy, and the color has the effect of magnifying his size, which is usually about thirty-five to forty inches at the shoulder; when full grown, he weighs from 200 to 250 pounds. His sharp and needle-like horns and strong pointed hoofs are excellent weapons of defence against his only enemies, men and eagles, for he is a brave and

fearless fighter and more than a match for any dog. When danger threatens he climbs up or down the steepest precipice he can find, and no wild creature without wings can follow him.

The Bighorn

The Rocky Mountain Sheep, or Bighorn, is the chamois of America, a fine, strong, sturdy, active, bold mountaineer with a keen eye. Of a rather suspicious nature, he is sure-footed and self-reliant, and will escape over rocks that man finds difficult to traverse. Of all Canadian game, he is the most wary and difficult to bag. His vigilance is admirable, and once he has regained the higher graund after feeding during the early morning, only the combination of luck and skill will secure a successful shot. His massive wide-spreading horns form one of the most magnificent trophies the hunter can covet.

During July and August many of the larger animals keep fairly high up the slopes to avoid the flies, but with the first touch of autumn they begin to drift back to the lower valleys, where they may be seen in large numbers. During the winter deer wander into the towns, in search for food; even in summer the early riser may often see one close to his hotel.

Hunting and Fishing

Although hunting is prohibited within the parks, it is allowed outside their limits. The hunting grounds are usually from two to three days' trail journey from the railway. In the southern parks the best hunting regions are the East Kootenay, Lilloet, and Caribou regions; in the Jasper region good hunting is to be obtained both north and south of the park. Besides sheep and goat, bear (grizzly, black and brown), caribou, moose and deer are to be shot. Hunting is subject to the very strict government regulations.

Fishing is to be obtained—almost entirely for various kinds of trout until one begins to approach the salmon waters that connect with the Pacific—in a large number of lakes and rivers of the mountains. Reference has been made in this book to the principal points in the parks. No fishing license is required for fishing in the Dominion Parks; but in other regions, the non-resident pays the customary fee.

Mountain Wild Flowers

The lover of nature will find the wild flowers of the Rocky Mountains and the Selkirks a source of constant delight, for the flora of the higher altitudes is amongst the most beautiful in the world. While these wild

flowers grow in rich profusion in the valleys and on the lower slopes, it is on the alpine meadows above timber-line, where even the stubborn little pines and spruces cannot live, that they are found at their finest.

Mrs. Julia W. Henshaw, in her book "Wild Flowers of the North American Mountains", says:—

"Held close in the curved arms of the cliffs, the patches of verdure, starred with these wondrous-tinted blossoms, are a revelation to the traveller. On the lower levels white-flowered, scarlet-fruited shrubs mingle with the wintergreens, larkspurs, violets, and columbines; flaming Indian paint brushes, gentians, queen-cups and purple vetches cover many a slope; here a valley is carpeted with yellow lilies, gaillardias, arnicas and golden-rods—a glorious field-of-the-cloth-of-gold—and there some mossy plateau is gay with arctic-alpine androsaces, stonecrops, everlastings and the trailing vines of the sweet-scented northern twin-flowers; while in the crannies among the rocks moss campions, romanzoffias and saxifrages find a foothold; and down beside the ice-born streams grow beds of wild parsley, water willow herb, musk flower, lobelia and ladies' tresses.

An Alpine Meadow

"As the traveller climbs upward the scene changes among the barren rocks and frowning precipices, for here Nature stands revealed in majestic mood, and the lines of the landscape are sketched out rugged and severe. Then comes the sudden turn round the corner of some cliff, the o'ertopping of some steep stone ledge, and behold! before one, in a high alpine meadow, lies a garden such as kings might envy. But how describe the ecstasy of standing knee-deep in the fragrance of a thousand flowers? After crossing the bare bleak rocks it is like a triumphal entry into Paradise. Here are pink garlics, harebells swaying in wild waywardness, veronicas and forget-me-nots looking up with wide-open eyes, heathers red, rose and white, amethyst asters, white geraniums and moccasin flowers, all mingling with the shining green leaves and waxen petals of the rhododendrons and the snowy chalices of the globe-flowers and anemones."

In Mrs. Henshaw's book—which can be well recommended to any botanist, professional or amateur, for its clearness, conciseness, and excellent illustrations both in monotone and color—nearly 500 varieties of mountain wild-flowers will be found described, as well as over thirty varieties of ferns, over twenty varieties of grasses and rushes, and nearly forty varieties of trees.

INDIANS AND THE ROCKIES

Indian names are freely scattered amongst the parks, especially those centering on the Kicking Horse Pass, but there is no evidence of any permanent settlements. The smoke of Indian camp-fires rose along the eastern foothills, but the Indians seem to have feared and avoided the high mountains, although the lower regions of the Kootenay and Shuswap valleys seem to have attracted settlements.

Probably some few centuries ago the Kootenay Indians, seeking shelter from their enemies, the Blackfeet, fled from Montana to the fertile valleys of the Columbia, west of the Great Divide. Later, possibly during this last century, the Stonies entered the Bow Valley, in search of food; the Shuswaps from the west to visit them left certain vestiges behind. But besides these the redman left no marks of human habitation; when necessity forced him to cross the passes, he crossed hurriedly.

The races to which the mountains were known were the Assiniboine, the Sarsees, the Athabascans, the Iroquois, the Salish, the Kootenays and the Shuswaps. There is no encampment within the limits of any of the parks (including Jasper) but the Stonies have a camp at Morley, just outside the eastern limits of the Rocky Mountains Park.

MOTORING IN THE ROCKIES

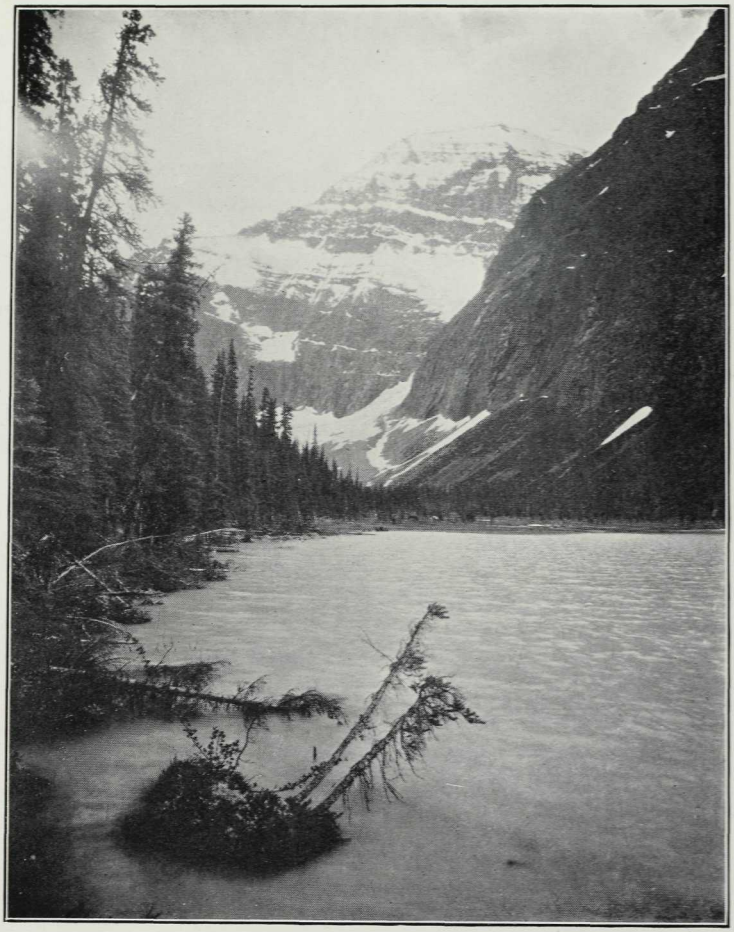
No Through Roads

At the present time the railways are practically the only direct routes across the mountains. There are no through roads between the prairies and the Canadian sea-coast; there are indeed trails, but they are impassable to vehicles. The mountains seem to impose an almost insuperable barrier to transmontane highway traffic.

There are only two roads from the prairies to the mountains. One leads from Calgary to Banff and Lake Louise, where it terminates. The other, much longer, is the so-called inter-provincial highway through the Crow's Nest Pass to the eastern shore of Kootenay Lake. From Nelson (which is reached by steamer) it is possible to reach Vancouver by making a detour into the United States. The former road is, however, of interest as forming part of the link in the highway to California.

Local Trips

In Rocky Mountain Park visitors will find a number of very attractive motor excursions. Around Banff especially there is a considerable mileage of good automobile



MOUNT EDITH CAVELL—JASPER PARK.

roads. Cars can be hired at Banff. Of the longer trips, that from Banff to Lake Louise is exceptionally fine. This road continues up to Moraine Lake.

In Yoho Park there are two motor roads, one of Emerald Lake (7 miles) and the other to the Takakkaw Falls (11 miles). In Glacier Park there are only two short roads. In Mount Revelstoke Park there is the fine ride to the top of the mountain. In Jasper Park there is a good road from Jasper Station to Maligne Canyon. The Crow's Nest Pass road is also connected with Waterton Lakes Park.

As an almost invariable rule, the roads in the national parks are in first class condition, and are constantly in repair and maintenance.

The Blue Trail

This, undoubtedly the tour par excellence of the mountains, is an important part of the "Grand Circle Tour" from Glacier Park (U.S.A.) to California. The highway, coming from the south, crosses into Canada a little east of Waterton Lakes Park, passing through Macleod, Claresholm and High River into Calgary. From Calgary west it utilizes the Calgary-Banff road, which has been in existence for some years. The road is a rising one, through Cochrane and Canmore, and in close proximity most of the time to the Bow River. The ascent from the plains to the rolling, grassy foothills, in which many large cattle ranches are situated, and thence to the mountains themselves, is a highly picturesque one.

From Banff the route is the same as that to Lake Louise, but at Castle (about 20 miles before Lake Louise) it leaves this road and takes a more southerly course, crossing the Bow and rising to the Vermilion Pass, where it enters Kootenay Park. A description of this route will be found in the Banff section (page 26).

From Lake Windermere the road follows the Kootenay River south to Cranbrook. Thence for some miles it is the same as the "Red Trail", but near the international boundary it turns south through Idaho to Spokane and Portland.

The Red Trail

The Red Trail route uses the Crow's Nest Pass. It begins at Medicine Hat, passing through Lethbridge and Macleod, and can be joined from the Blue Trail at the latter point from either north or south. Following for some distance the windings of the Old Man River, it reaches the many prosperous communities of the Crow's Nest. The scenery is extraordinarily fine throughout. At Crow's Nest, British Columbia is entered, and thence

descent is made to Fernie, Cranbrook, Creston, and Kootenay Lake. At Kuskanook, on the lake, cars may be loaded on steamers and shipped to Nelson.

Upper Columbia Valley

An alternative to the Banff-Windermere road is to traverse the Upper Columbia Valley between Golden and Lake Windermere, shipping the automobile by rail over the section between Lake Louise and Golden. This drive, through Spillimacheen, in full view of the snow-capped Rockies on one side and of the Selkirks on the other, is well worth taking.

THE PATHFINDERS

The search for the western sea beyond the Rocky Mountains was one that intrigued the French and English explorers of the eighteenth and early nineteenth centuries. From the sixteenth to the eighteenth century, Spanish, English and Russian sailors explored the North Pacific Coast; the culmination being George Vancouver's voyage of 1791-1795, in which British Columbia was discovered. Here are some of the highlights of Rocky Mountain exploration:—

1743 Pierre Gaultier de La Vérendrye reached (in Montana) the foot of the Rockies, on the other side of which he confidently expected to find "the western sea", but was forced to turn back.

1751 Chevalier de Niverville ascended the Saskatchewan—probably the South Saskatchewan—and established Fort Jonquière, said to have been near the site of the present Calgary.

1766-7 Jonathan Carver claimed to have discovered the "Oregon", or River of the West.

1793 Alexander Mackenzie, ascending the headwaters of the Peace River, crossed the mountains and descended the Bella Coola River to the Pacific Ocean—being the first white man to reach the Pacific overland through Canada.

1800 Duncan McGillivray, a companion of Thompson, crossed the mountains to Blaeberry River, a tributary of the Columbia.

1805 Meriwether Lewis and William Clark crossed the Rockies through Montana, reaching the Columbia and descending it to its mouth .

1807 Simon Fraser descended the Fraser River (then named Tacouche Tesse) practically to its mouth, and, though he turned back, proved it to be, as then supposed, the Columbia.

1807-8 David Thompson ascended the North Saskatchewan, crossed the summit, and descended to the Columbia River, which he named the Kootanie. Travelled upstream to what is now Lake Windermere, and built a fort. Portaged to and explored the Kootenay River.

1811 Thompson descended the Columbia River to its mouth.

1813 Alexander Henry (the younger) crossed the mountains and descended the Columbia to its mouth.

1826 Thompson discovered the Yellowhead Pass.

1841 Sir George Simpson, Governor of the Hudson's Bay Company, crossed the mountains to Fort Colville, on the Columbia, and penetrated the Bow Valley.

1842 Father de Smet, Jesuit Missionary visited Okanagan, Kamloops, etc.

1843 Victoria founded (as "Fort Camosun").

1846-7 Paul Kane, Canadian artist, to secure sketches of western Indians, crossed Athabaska Pass and descended the Columbia.

1857-60 Captain John Palliser, on behalf of British Government, surveyed west from the Red River to the Columbia, discovering amongst others the Kicking Horse Pass.

1861-2 Cariboo wagon-road constructed up Fraser and Thompson Rivers to reach gold-mining regions.

1862-3 Viscount Milton and Dr. Cheadle crossed Yellowhead Pass.

1871 British Columbia entered Confederation, making the construction of a transcontinental railway from Eastern Canada to the Pacific one of the most important agreements.

1871-2 Walter Moberly crossed the Selkirks.
1881 Major A. B. Rogers discovered Rogers Pass, through the Selkirk Mountains.
1885 Last spike of Canadian Pacific Railway driven (November 7th) at Craigellachie. First through train reached Vancouver July 26th, 1886.
1898 Crow's Nest Pass line (C.P.R.) opened between Lethbridge and Crow's Nest.
1914 Grand Trunk Pacific Railway completed (April 7th): first through train arrived Prince Rupert April 9th.
1915 Canadian Northern Railway line across Rockies opened November 22nd.

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CANADIAN AND AMERICAN NATIONAL PARKS.

CANADIAN (DOMINION).

	Square miles.
Jasper, Alberta	4.400
Rocky Mountains, Alberta	2.751
Kootenay, Alta. and B. C.	587
Yoho, B.C.	476
Glacier, B.C.	468
Waterton Lakes, B.C.	129
Mount Revelstoke, B.C.	95
	8.906

	Square miles.
Wainwright, Alberta	159
Elk Island, Alberta	16
Foremost, Alberta	9½
Maple Creek, Sask.	20
St. Lawrence Islands, Ont (acres)	3,869
Point Pelee "	3,869
Fort Howe, St. John, N.B. "	19
Fort Anne, Annapolis Royal, N.S. (acres)	28
Square miles	9,117

BRITISH COLUMBIA PROVINCIAL.

(On Mainland)

	Square miles.
Mount Robson	640
Mount Garibaldi	300
Assiniboine	20
Kokanee	10
	970

UNITED STATES (FEDERAL).

	Square miles.
Yellowstone, Wyoming	3.348
Glacier, Montana	1.534
Yosemite, California	1.125
Grand Canyon, Arizona	958
Rocky Mountain, Colorado	397½
Mount Rainier, Washington	324
Sequoia, California	252
Crater Lake, Oregon	249
Lassen Volcano, California	124
Zion, Utah	120
Mesa Verde, Colorado	77
General Grant, California	4
	8512½

	Square miles.
Mount McKinley, Alaska	2,645
Hawaii	118
Wind Cave, Dakota	17
Lafayette, Maine	8
Hot Springs, Arkansas	1½
Platt, Oklahoma	1 1-3
Sully's Hill, Dakota	1 1-5
	11.304½

STATE PARKS IN WEST.

	Acres.
California—Redwood	9,000
California—Mount Diablo	320
California—Burney Falls	160
Idaho—Heyburn	8,000
Washington—Moran	2,600
Washington—Money Creek	18
Wyoming — Big Horn Hot Springs	640
	20,738

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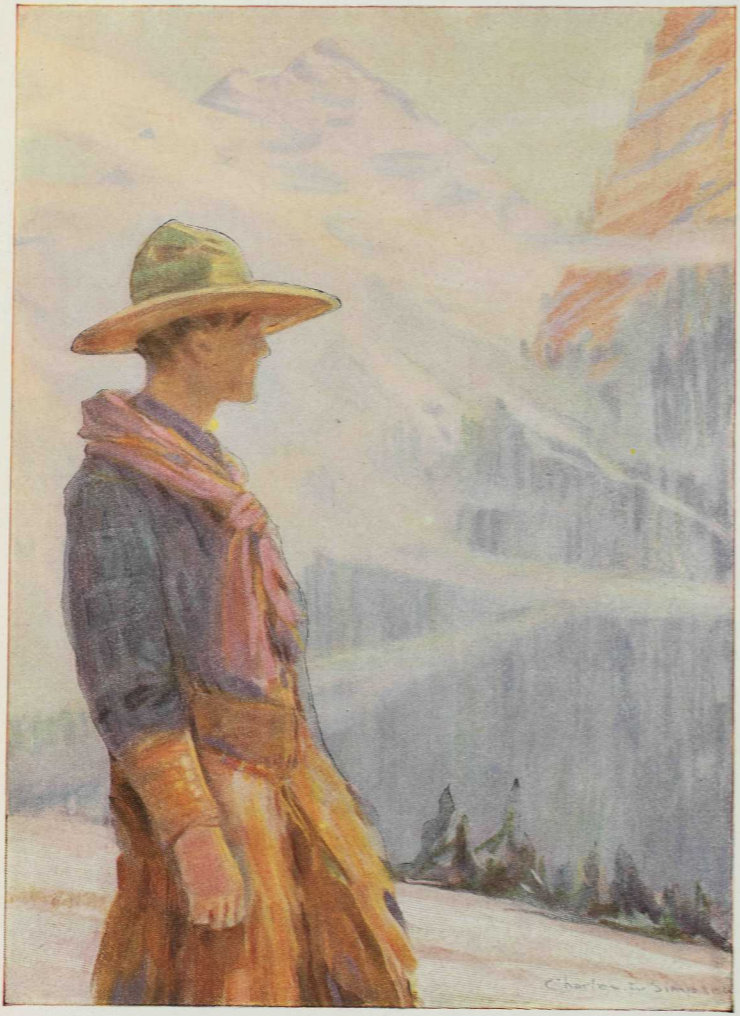

MOUNT TEMPLE—NEAR LAKE LOUISE.

From a painting by
Charles W. Simpson, R.C.A.

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